

Young Scientists Go German



RISE-Alumni share their experiences

A reader

DAAD

**What started with a simple
internship in Germany
continues to be the
adventure of my life ...**



Daniel Veal

**Young Scientists
Go German**

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 Federal Foreign Office

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A reader

Working for a PhD student was a great situation because Alex was old enough that there was a lot I could learn from him but young enough so that we could still be friends and share a lot in common.

David Hernández

What RISE really stands for ...

... is what I have learned from reading the collection of texts that you will find in this book. When studying accounts written by RISE alumni from the past five years, it is striking how big an impact this relatively short internship program has had on their lives.

In many cases, the six to twelve weeks in Germany have caused students to RETHINK their proverbial five-year plan. Instead of leaving academia with a BA, the INSIGHTS they gained during their RISE internship have encouraged them to continue in the field of science and to enroll in Master's and PhD programs, some of them in Germany or other European countries. The stories of these young adults also make it clear that the RISE program was a huge STEP for them – into a serious research environment, onto a professional team, and last but not least, into a foreign culture. Some were so excited about this summer experience that they have entered long lasting ENGAGEMENTS – and I am not just talking about the young man who has been the president of his university's German Club for the past two years. Because, if you read between the lines, you will find that for some of these students, their time in Germany also had a profound impact on their private lives.

The RISE program started in 2005 with 98 students. Since then, the number of "RISers" has more than tripled, to 364 in the summer of 2009. The RISE program has grown to be the largest

German study program for North American students in the fields of science and engineering. The total number of RISE alumni has grown to more than 1,200, many of whom have stayed in touch with research fellows and colleagues from their time in Germany.

The German participants profit from the RISE program as well. The North American students work under the supervision of German doctoral students who learn to integrate international students into their ongoing work, improving their soft skills as well as their command of English along the way. The mentors clearly appreciate this aspect of the program, and this in turn bears great potential for a transatlantic network of young scientists. The personal accounts collected in this book are proof for the RISE program's sustainability in terms of both professional as well as personal relations.

“Change through exchange” is the DAAD's motto, and over the last 80 years we have supported the exchange of students, young scientists and scholars between Germany and the rest of the world. The demand among German students for a stay in North America is high and no other continent outside of Europe has enjoyed such ongoing popularity. On the other hand, the strengths and diverse offerings of German universities and research institutes – research in close cooperation with industry, for one example – have remained relatively unknown to students in the US and Canada during the last decades. RISE is a step on the way to change this, not least through the spirited efforts of the RISE scholars and alumni themselves.

I wish to thank the various funding organizations and sponsors who continue to support us in making RISE possible. I also want to express my gratitude to all those who have contributed to this publication. And finally, I thank you, the reader, for your interest in our RISE alumni's stories!

A handwritten signature in black ink that reads "Christian Bode". The script is fluid and cursive, with the first letter 'C' being particularly large and stylized.

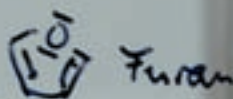
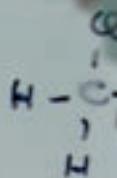
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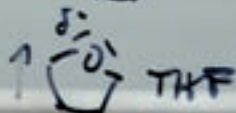
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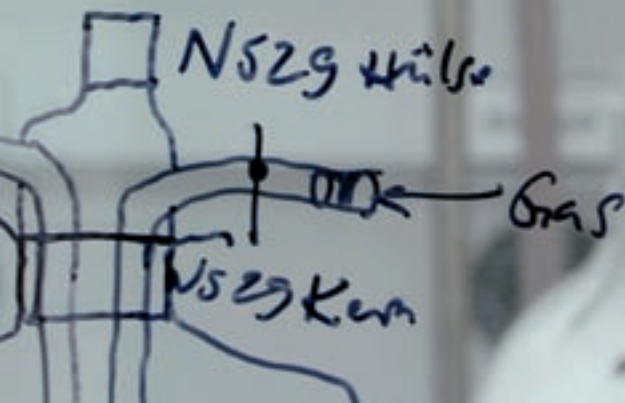
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Stories that need to be told

In today's world, the line that separates national or local matters from international interests is increasingly blurred. We must all be students of the world and global citizens. The German Academic Exchange Service, or DAAD, takes this responsibility very seriously. The DAAD, which started out as a German-American exchange program, now plays an important role in promoting the conditions for global citizenship throughout the world. Over the decades, the DAAD has enriched our bilateral relationship in untold ways. This brochure gives voice to the experiences of American students who came to Germany as participants in the RISE program. These are stories that need to be told – and to be heard. The relationships formed by participants in exchange programs are a mainstay of our partnership.

Since its establishment, the success of the German Academic Exchange Service has been due to its ability to foresee the need for and then implement new programs that speak to changing education and research needs. The RISE program is an excellent example of the increasing importance both the United States and Germany attach to science education and research. One of the keys to advancing medicine, harnessing clean energy, and succeeding in the global economy in the future will be excellence in science education and research. For this reason, in November 2009, President Obama launched the “Educate to

Innovate” campaign to promote the study and teaching of math, technology and the pure sciences. President Obama believes that scientists and engineers ought to stand side by side with athletes and entertainers as role models. We need to show young people how “cool” science can be.

The students who participated in the RISE program are therefore heroes in two respects. First, they carry forward the proud banner of the legacy of the German-American partnership. That is a badge of honor. Second, as scientists in an era where many of the problems we face are, at root, scientific problems, they have the potential to make a positive impact on all of our lives.

On behalf of Mission Germany – our Embassy in Berlin and our five Consulates General in Düsseldorf, Frankfurt, Hamburg, Leipzig and Munich – I commend these young people and also the German Academic Exchange Service for developing new and creative ways to engage young people on both sides of the Atlantic in science.

A handwritten signature in black ink, appearing to read 'Philip D. Murphy', with a long, sweeping underline that curves to the right.

Philip D. Murphy

Ambassador of the United States of America in Germany

International Exchange: A Driving Force

L'Échange International: Une force motrice

Economic development in both Germany and Canada has become increasingly knowledge-based. Ideas and innovations are the driving forces of these two societies, with a long history of scientific interaction. Since the signing of our Bilateral Agreement on Scientific and Technological Cooperation some 38 years ago, relations have deepened through more than 500 projects.

The Canadian education system is grounded in a culture of research and development. It has the highest percentage of post-secondary graduates among all OECD countries and also ranks among the top five countries in the recent PISA surveys. International exchanges will foster the academic quality even further. Exchanges give students the opportunity to approach their research from a different angle and at the same time offer a once-in-a-lifetime experience in a new cultural context.

I congratulate the German Academic Exchange Service (DAAD) and all past Canadian participants for making the RISE program a great success in the five years of its existence. Under this

program, many Canadian undergraduate students have benefited from a unique opportunity to live for a time in Germany and do research under the guidance of German doctoral candidates.

Aussi bien en Allemagne qu'au Canada, le développement économique passe de plus en plus par la connaissance. Les idées et l'innovation sont les forces motrices de nos deux pays, qui ont une longue histoire commune d'interaction sur le plan scientifique. Depuis la signature de notre Accord bilatéral de coopération scientifique et technologique, il y a 38 ans, nos relations se sont encore approfondies à travers plus de 500 projets.

Le Canada est bien une société de la connaissance. Il compte le pourcentage le plus élevé de diplômés de l'enseignement supérieur de tous les pays de l'OCDE, et il figure également parmi les cinq pays les mieux notés par les récentes études PISA. Les échanges internationaux permettent d'augmenter encore la qualité des études universitaires. Ils offrent aux étudiants l'occasion d'aborder leurs recherches depuis un angle différent, et leur apportent une expérience unique dans un contexte culturel nouveau.

Je suis très heureux que l'Office allemand d'échanges universitaires (DAAD) ait mis en place ce programme, grâce auquel de jeunes étudiants canadiens ont pu depuis cinq ans se constituer une expérience unique en vivant quelque temps en Allemagne et en faisant de la recherche sous la direction de doctorants allemands.



Peter M. Boehm

Ambassador of Canada in Germany

Ambassadeur du Canada en Allemagne

As I read onward, however, I was struck by a flyer for the DAAD RISE program. Its uniqueness stemmed from the fact that it offered young scientists the chance to carry out rigorous scientific research projects in an international setting, where possibilities for individual growth would abound.

Keary Mark Engle

RISE – A Success Story

Exploring the globe – both by traveling and by understanding how the world works – is the passion of many bright young people. RISE provides the opportunity to combine these two motivating interests, which is one of the decisive reasons for the program's success. Another important factor is the creation of a real win-win situation for RISE scholars and their hosts, who are doctoral students at German universities. These hosts are aware that, in addition to scientific skills, soft skills are of growing importance in today's professional life. RISE gives them the opportunity to demonstrate these capabilities when seeking and selecting appropriate interns for their projects, and by mentoring these interns in a way that makes the cooperation productive and enjoyable for both sides.

I got the inspiration for this type of program in December 2003 when traveling through Germany with a group of North American deans of engineering. On this trip, we were able to convince the German Chemical Society (GDCh) to partner with us for a pilot project. GDCh would make their extensive chemistry network available and provide cosponsoring for the scholarships. The concept was first implemented in 2004 in the field of chemistry as RICH – Research Internships in Chemistry. In total, we received 42 internship offers and 32 applications. We placed and funded 24 students that year.

A humble beginning, but not bad when one considers that the call for applications came out only 10 weeks before the first student arrived.

The scholars were impressive. I remember a student from Puerto Rico who did not speak any German, had never been to Europe before and received the offer only six weeks before the planned starting date of the internship. He accepted it and enjoyed the program tremendously. The enthusiastic feedback by students and their hosts demonstrated that our approach did indeed create a win-win situation, which has since motivated the brightest students in North America to come to Germany.

It seemed obvious that we should extend the program to other fields of science and to engineering. This was the launching point for RISE. We did not extend the program beyond the lab bench, as the close cooperation in the lab (which is possible in English) is the best precondition for successful integration.

In the years to follow, RISE continued to grow. Many institutions contributed funding, and we are very grateful to all of them. A list of the main sponsors is included in this reader. We are especially grateful to the German PhD students who served as hosts. It is very much due to their commitment and their mentorship that participation in RISE became a unique opportunity for so many students.

Working for RISE is a rewarding experience due to the personal encounters with many bright, hard-working and joyful people. It is also rewarding because RISE has had a real impact on transatlantic science relations. So far, RISE has supported more than 1,200 students. In 2009 the program was successfully extended to students from the UK. The number of scholarships has increased to more than 350 a year, and demand is still growing. The impact of RISE on the students' lives is obvious from the reports in this booklet. I hope that RISE will continue its impressive career and that readers will enjoy learning about the experiences of RISE scholars.



Dr. Christian Schäfer

Head of Section North America, 2001–2009

Deutscher Akademischer Austauschdienst

German Academic Exchange Service



RISE scholarship holder meeting in Heidelberg in 2009



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GERMAN-ENGLISH · ENGLISH-GERMAN

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colloquial and phrases and idioms
and geographical words
and abbreviations, acronyms,
and geographical names
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2005/06

Ways to Germany and Back – and Back Again



Sara Patrawala

RISE Participant in 2005,
Technische Universität Dresden

After my research stay in Germany I applied two years later for a study scholarship and spent nine months doing a research project in environmental toxicology at the Charité in Berlin. I had such a wonderful experience after RISE and also such a positive view of Germany that I was determined to come back and spend more time.

During the summer of RISE I learned very little German and one of my motivations coming back for the year was to learn to speak. I did take a two week intensive course upon arriving but

I learned most of my German from daily life interactions. I had the luck of living with a fantastic German roommate who made it her job that I learn to speak her language. The rule in our *Wohngemeinschaft* (shared apartment) was that if I spoke in English I had to pay 50 cents! I also immediately signed up for a library card and starting off with children's books, Harry Potter, I slowly made my way up the reading difficulty chart. I spent a lot of time watching movies in German which I had already seen in English, well as practicing speaking with my roommate, my other German friends, and with my lab. I was constantly reading, listening, and trying to speak in German and by the end of the year I felt very comfortable in most situations conversing in German. I still am practicing by reading all the books I brought back as well as continuing to speak in German when I talk to my friends there.

The nine months I spent there after RISE were invaluable

Sara Patrawala received her Bachelor's in Environmental Science from Northwestern University in Evanston, Illinois, in 2006. From there, she continued on to Northwestern's medical campus in the city of Chicago. Her expected graduation from Northwestern Feinberg School of Medicine is May 2011. She was a RISE scholar at the Technische Universität Dresden the summer of 2005 and returned to Germany to pursue a DAAD study scholarship in reproductive toxicology at the medical faculty of the Charité Berlin, October 2008–July 2009.

I had the luck of living with a fantastic German roommate who made it her job that I learn to speak her language. The rule in our *Wohngemeinschaft* (shared apartment) was that if I spoke in English I had to pay 50 cents!

Sara Patrawala

and had I the chance, I would have stayed longer. I am currently in my third year of medical school and want to finish training in the US but once I am finished, I could imagine working in Germany.

Besides, I am in close contact with friends I knew before RISE and also those I met in my last year are still in Germany. I have maintained close ties with the lab I worked in this past year and plan to go back next summer to finish the project I was working on.





Potsdamer Platz in Berlin

The Delightfully Dislodging Effects of the DAAD RISE Program



Keary Mark Engle

RISE Participant in 2006,
Universität Stuttgart

I peered into the depths of my computer screen and was dismayed by the large number of tagged messages in my inbox. Sitting in a muggy coffee shop in Sacramento over Winter Break, I was attempting to sort through this multifarious collection of e-mails, each containing information about a different internship for the upcoming summer. However, my desires concerning what I actually wanted to do were imprecise at best. Friends of mine were pursuing corporate internships or international volunteering opportunities, so normative effects suggested to me that something of that nature could be a good

idea. On the other hand, I had performed a significant amount of scientific research during my time at the University of Michigan. I did not know whether or not more experience would necessarily be advantageous, but science had always excited me, particularly when I was given the chance to push its limits in the laboratory. Generally speaking, many of the positions described in these e-mails were disappointingly one-dimensional. As I read onward, however, I was struck by a flyer for the DAAD RISE program. Its uniqueness stemmed from the fact that it offered young scientists the chance to carry out rigorous scientific research projects in an international setting, where possibilities for individual growth would abound. The philosophy behind this program resonated with me, and after trudging my way through the somewhat overwhelming list of possible projects, I prepared and sent off my application. Gratifyingly, several months later, I was offered a position at the University of Stuttgart, which I accepted without hesitation.

My 2006 RISE experience ended up being formative in a multitude of ways. Firstly, I was exposed to a new subfield of chemistry, organometallics, which I found immensely intriguing, far more interesting, in fact, than what I had been doing previously at Michigan. Secondly, the cultural knowledge that I gleaned through the social environment of my laboratory was invaluable. Not only were my coworkers warm and welcoming (despite my utter lack of German language skills), but through the friendships that we forged, I was able to learn a great deal about the

German mindset and ultimately to gain a refined perspective on my own culture. Of equal importance, however, was the remarkable way in which my RISE experience served as a platform for further international collaboration.

Following my time in the RISE program, I returned to Germany in August 2007 as a J. William Fulbright scholar. My RISE mentor, Prof. A. Stephen Hashmi, had put me in contact with a colleague of his in the area of organometallic chemistry, and through this connection, I was able to devise a year-long research project that built upon aspects of my original RISE project. I spent several months in between feverishly studying German in a series of intensive language courses and returned the following year to work in the research laboratory of Prof. Manfred Reetz at the Max Planck Institute for Coal Research in Mülheim an der Ruhr. Then, during the summer of 2008, through Prof. Reetz's participation in the Integrated Design for Catalytic Nanomaterials for a Sustainable Production (IDECAT) program, I spent time in the laboratory of Prof. Jan Bäckvall at Stockholm University in Sweden. That same summer, I was also offered an invitation to attend the annual Meeting of Nobel Laureates in Physics in Lindau, Germany.

Through these different experiences across Europe, I gained a number of close friends with whom I still keep in contact, including several colleagues whom I met through my research laboratories. Though I don't speak with my former advisors regularly, I still follow their work closely. Owing to my positive

experience abroad, I have been active in promoting the DAAD RISE program to students at Michigan since returning to the United States, and through these efforts I was able to recruit one student to participate in the RISE program and to work in the laboratory of Professor Hashmi.

In retrospect, the decision to apply to the RISE program and ultimately to take part in it changed my life in ways that I could never have anticipated at the outset. Of the dizzying number of summer program e-mails that I looked through that winter, the one describing the RISE program was the one worth noticing.

Keary Mark Engle is currently pursuing a joint PhD / DPhil at the Scripps Research Institute and the University of Oxford. In 2007, he earned his BS in Chemistry, Economics, Mathematics, and Statistics from the University of Michigan. He returned to Germany in 2007 as a Fulbright scholar, studying at the Max Planck Institute for Coal Research in Mülheim / Ruhr. With funding from the European Union's IDECAT program, he then spent a summer doing research at Stockholm University, Sweden, before beginning his graduate studies. Since August 2008, Keary has worked at the Scripps Research Institute. Recent accolades include an NSF Graduate Research Fellowship, an NDSEG Fellowship, a TSRI Deans' Fellowship, and a Skaggs Oxford Scholarship.

A Collaborative Effort



David Hernández

RISE Participant in 2006,
Universität Münster

My name is David Hernández and I did a RISE internship in the summer of 2006. I still have not forgotten the experience I had. It was very enriching academically and socially. The culture in Germany is very different from our US-American culture and I made very interesting acquaintances that I still keep in touch with.

I worked for a PhD student, Alex. Working for a PhD student was a great situation because Alex was old enough that there was a lot I could learn from him but young enough so that we could still be friends and share a lot in common. One commonality was our love for soccer. Imagine my excitement when I

realized that the World Cup was happening in Germany the year I was there!

The World Cup was great fun and Alex, his girlfriend and I went to a Fan Fest in Cologne, and we got to see the city. I also went with a co-worker to see the big Germany-Poland game in another Fan Fest. With Alex, we also visited Düsseldorf, and I got to spend time with his family in Munich and Freiburg.

The most beautiful place to me was Heidelberg, where the RISE scholars met for the annual reunion. I loved Heidelberg so much and thought it was one of the most beautiful places I had seen. On top of that, the Max Planck Institute for Astronomy is in Heidelberg, somewhere I really wanted to work. As luck would have it, the next summer I was able to secure an internship at the Max Planck Institute in Heidelberg, and the experience was everything I could have hoped for.

My work during the RISE internship was my first experience doing research in nuclear physics with a group effort. I liked the collaborative culture and the weekly group meetings and seminars. Through simulations of our experiment I developed strong

David Hernández completed his BS with Honors in Astronomy and Physics with minors in Music, Mathematics, and Spanish in 2008 from the University of Arizona, Tucson. He will begin his PhD studies in Astrophysics with a three year fellowship at the Massachusetts Institute of Technology in January 2010.

programming and organizational skills which have been very useful as I've furthered my studies. The research experience has helped me obtain more advanced research engagements in my career.

All in all I look back with very positive memories of my experience of Germany. I can definitely see myself returning to Germany again someday. I am fond of the academic rigor and I like the hard working culture.

New Perspectives



Erik M. Erkenbrack

RISE Participant in 2006,
Max Planck Institute for Plant
Breeding Research in Cologne

RISE had a tremendous impact on my academic and professional development. It afforded me research experience and cultural exposure that I could not have obtained in a similar American program. In general, programs offered by the DAAD have had a very positive effect on my academic success – and it shows. Not only did I gain invaluable experience, but I also came to believe that DAAD programs made me a more attractive candidate for graduate-level biology programs. DAAD programs significantly contributed to my success, and I am endlessly grateful for this.

After RISE in the year 2006, I continued to study in Tübingen for an additional year, until August, 2007. During that time I traveled all over Germany and went to Berlin, Jena, Weimar, Munich, Düsseldorf, Stuttgart, Freiburg, Heidelberg, and Dresden, to name just a few cities. Additionally, I received a DAAD Undergraduate Scholarship. And the answer to the question if I could imagine to live in Germany for a long time is an indubitable “yes.” I definitely could live in Germany. In fact, I’d like to do my post-doctoral research there.

As for my German language skills ... from time to time I still peek in on websites of German newspapers or media outlets. I like that I can obtain a different perspective on international issues. My German is certainly not as great as it was, but I do my best to keep those comprehension skills at hand.

After finishing his BS in Biology, Philosophy and German Studies at Tufts University in Medford, Massachusetts, Erik M. Erkenbrack is currently pursuing his PhD in Biology at the California Institute of Technology in Pasadena, CA.

Cologne Cathedral



Year
2007

The Heidelberg Miracle: German Graduate School just makes Sense



Nicholas Brown

RISE Participant in 2007,
Technische Universität Berlin

I remember the moment exactly, as if it had transpired yesterday. I was sitting in a gargantuan lecture hall during the RISE Heidelberg conference in 2007 listening to a speaker describe a German graduate program to over 250 Americans and Canadians. Admittedly, my initial view of getting a German Masters was of pure skepticism. Sure, I was in the middle of my RISE research project in Berlin, and had been in love with German culture since grade school, but the idea of entering a new edu-

cational system while studying in a foreign language seemed too daunting to even consider. However, my perception was about to undergo a dramatic transformation.

Before we get into the biggest epiphany of my young academic life, let me describe the path that led me to Heidelberg. I had recently finished my sophomore year at the University of Rochester, studying Mechanical Engineering, but was clueless as to where I would head after my Bachelor's. All I knew was that I was decidedly interested in engineering, spoke a bit of German, and wanted my career to make an environmental impact. RISE was an absolutely perfect lens with which to focus my blurry career plans.

I was placed in a *Maschinenbau* (Mechanical Engineering) lab at the TU Berlin, working on shaft-hub connections for automotive applications. Living in the international and energetic heart of Germany was a perfect way to soak in modern German life. Instantly, I was hooked. I knew I wanted to come back to Germany, but graduate school there was somehow not even on my radar. I was incapable of putting two and two together; at least until that fateful afternoon in Heidelberg.

The second German graduate school was clarified to me in a skillfully straightforward presentation (as one would naturally expect from a German speaker), the idea suddenly seemed tantalizing. Not only would a German Master's degree (internationally recognized of course) cost only a fraction of its American equivalent, I found out that there were a number of opportunities to

study in English. I headed straight to Google, where I found a myriad of programs which would suit my Mechanical Engineering background.

The last two years of my undergraduate study at the University of Rochester served to narrow my focus to one field, renewable energy. Not only is the field crucially important for our society's and natural environment's future, it is rapidly expanding around the world. There are a variety of graduate programs around Germany, however only one fulfilled all my criteria: The Postgraduate Program in Renewable Energy (PPRE) at the University of Oldenburg.

PPRE is one of the oldest purely renewable energy Master's in the world, begun in 1987. The program, relatively short (a year-and-a-half) and taught completely in English, consists of three basic parts: two semesters of coursework, a two month internship with a German corporation, and a six month research-based thesis project. PPRE covers a broad range of renewable energy technologies, and smoothly combines hard science theory with practical engineering systems. Upon completion of the program, I will receive an internationally recognized Master of Science (MSc). Currently, I plan to use the degree to obtain a job in the (hopefully) burgeoning American renewable energy industry.

Who knows where the renewable energy road will take me, but I am certainly excited to set off down it. I can only imagine that

my international background will be valuable, and DAAD should certainly receive a lot of credit for that. Now, as I sip German beers and gorge myself on *Bratwürste*, I from time to time think back on Heidelberg, and wonder why it took me so unreasonably long to even consider what I am now doing.

Nicholas Brown graduated in 2009 from the University of Rochester with a Bachelor of Science in Mechanical Engineering. He is now entering his first semester of study at the Universität Oldenburg in Germany, enrolled in the Postgraduate Program in Renewable Energy, a year-and-a-half Masters of Science Program.

Linie Ziel

U55 Brandenburger Tor

U55 Hauptbahnhof

Gleis 1

Abfahrt

n 3 min

n 8 min



Technically German



Sarah T. Turner

RISE Participant in 2007,
Technische Universität Berlin

I grew up in Wisconsin where many people still like to boast the fact that they are German. Lucky for me, this meant I had the chance to learn German in school and ever since then I was sure I wanted to go to Germany. In college I even tacked on a German Studies degree to Chemical Engineering and finally realized this dream in my second year of college, which I spent in Berlin. I arrived thinking I spoke German, but after one organic chemistry lecture, I quickly learned I did not. I am ever grateful for this year, because I lost my obvious American accent and started learning technical German. Two years later I came back to Berlin for the DAAD RISE program and took my first big step

into the scientific community in Germany. After finishing my Chemical Engineering degree I decided to continue my studies in Germany, where there happened to be an international Master's program in my field of interest, polymers. The program offers classes in the three major Berlin Universities and in Potsdam, each one focusing on a different aspect of polymer applications. No one can say what the future will hold, but I am hoping to continue my studies beyond my Master's degree in Germany as well. I have found English, German, and scientific skills make for a perfect combination in the German research field.

After finishing her Chemical Engineering degree at the University of Minnesota, MN, Sarah T. Turner decided to continue her studies in Germany. She is currently enrolled in the International Master's Program in Polymer Science at the Humboldt-Universität zu Berlin.

Working in Germany is More than Training on the Job



Matthew Pearson

RISE Participant in 2007,
Universität Konstanz

When I returned from my three month internship at the University of Konstanz in the summer of 2007 I already knew I was coming back. I had my work contract in my hand and was to start on the first of January at Pilz GmbH in Ostfildern as a software developer. I finished my last semester at the University of Connecticut and two weeks later, I was on a plane back to Europe. Since then it has been almost two years and I am still enjoying my position at Pilz. I am working in a team to develop a compiler for the newest generation of automation control system offered by my company. I use skills that I learned at my

RISE internship every day. It made the transition to working at a software company in a foreign country much easier when the programming language and development environment was the same as at my internship in Konstanz.

I have exchanged emails with my advisor since the end of the RISE program. I was happy to learn that one of the projects that I did during the internship was integrated into the Konstanz Data Miner program that the institute was developing. If I take a trip down to Konstanz again I will definitely try to meet up with my old team there.

While my German skills were pretty developed by the time I was done with the RISE program, working at my job has given me a unique understanding of the Swabian dialect and culture. While it was a little difficult at first to try to understand the people that I was working with when I began my job, after a month or two it got much better. In the months since then I have “developed an ear” for the local dialect and I can understand everyone without problems. I can even joke around a little bit in Swabian! I think a person would have to come from

Matthew Pearson graduated from the University of Connecticut and received his Bachelor of Science and Engineering in 2007. He majored in Computer Engineering and German. Matthew Pearson has been working as a software development engineer at Pilz GmbH in Germany since January 2008.

I have “developed an ear” for the local dialect and I can understand everyone without problems. I can even joke around a little bit in Swabian!

Matthew Pearson

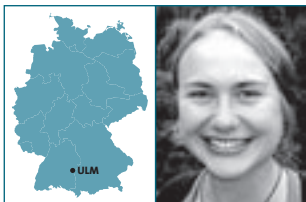
the highest peak of the Swabian Alps before I would have any difficulty understanding them.

I plan on remaining about three more years before returning to the United States to pursue a graduate degree. In the meantime, I am enjoying my time here with my fiancée and friends. I run regularly and completed my first half-marathon in June. I also enjoy the many festivals and activities that one can find all year round in the area. The RISE program helped me round out my undergraduate studies with valuable practical experience and gave me the opportunity to get my current job. I would recommend it to anyone.





RISE was just the Beginning ...



Helen Tauc

RISE Participant in 2007,
Universität Ulm

After my experience as a RISE intern at the University of Ulm during the summer of 2007, I left Germany reluctantly and was anxious to come back again. Throughout my internship I became good friends with my colleagues in the lab and we stayed in close contact after I left. Additionally, I met many other RISE program participants, German and international students during my various travels around Germany with whom I also still talk to today.

Not only did I enjoy traveling, meeting new people and living in Ulm, but I also loved the work in the lab and wanted to continue with it. Thus, after the summer of 2007 when I returned to

the United States, I looked for various scholarships that would enable me to go back to Ulm after I graduated from my home university, the University of Oregon. The summer before my senior year, I applied for these scholarships, one of which was the DAAD Graduate Independent Study Scholarship. After months of apprehension, I finally received news that I had been accepted for the DAAD scholarship for the year 2009–2010. I was and still am incredibly excited! This scholarship enabled me to go back to Ulm for ten months and work in the same lab on a research project and also take a couple of graduate courses through the university. I have now returned to Ulm and I am once again embarking on a rigorous and fun adventure. I am not only very excited, but I am also very grateful for all the opportunities that the DAAD has provided me. I feel as though my summer RISE internship in 2007 opened the door to so many international opportunities both academic and professional that I would have never dreamed of chasing after before.

Unfortunately, the DAAD is not well known at my university. In fact, I did not apply for the RISE program through my university at all; I actually applied independently, and only afterwards did I realize that my university had a DAAD coordinator. However, after my RISE internship I advertised the RISE program in little ways through my job as a freshman advisor / resident assistant at the University of Oregon, and I encouraged my interested friends to apply. The DAAD has so much to offer and I hope that in the future it will become more recognized by Oregon students.

When I came back to the United States after my RISE internship, I was also very motivated to continue to work on my German language skills. Unfortunately, there was absolutely no room to take second year German in my schedule. Currently, I am taking an online German course and will also take weekly German lessons through the University of Ulm. Furthermore, I try to speak German with my friends as often as I can, although many times they want to practice their English with me. However, I have definitely improved my German in the past month that I have lived here and I am looking forward to improving it even more throughout the year.

Helen Tauc graduated in September 2009 with a Bachelor of Science from the University of Oregon. After her BS she has been accepted for the DAAD Graduate (Independent Study) Scholarship. As a visiting scholar she will carry out an independent study at the International Graduate School in Molecular Medicine at the Universität Ulm, Germany.

Learning from Each Other



Martin Distel

RISE Supervisor in 2007
and 2008, Technische
Universität München

I was in the second year of my PhD in Neuroscience when a friend told me about the DAAD RISE program. At that time, my PhD project offered enough work for several people, and so I became interested in the program and eventually applied for it. My boss also liked the idea of having an international student in the lab and heartily supported my application.

As my participation in the RISE program was for me the first time to be in a position to offer someone a “job”, the application process itself was a new experience. How do you best write the “job offer” so that it gives enough information about the project and sounds interesting to students with whom you

Aside from his experiences in the lab, the intern also learned something about German botany, in particular that it is not such a great idea to jump into a bush of stinging nettle to catch a frisbee.

Martin Distel

would like to work? I tried my best to explain the relevance of my research and the learning opportunity that I could provide, and to my surprise many undergraduates from the United States and Canada with experience in my field applied for the project. The decision as to which one I most wanted to work with for the next three months turned out to be quite difficult. The selection process was really instructive and a lot of fun. One must learn how to read letters of reference and to carefully consider the criteria for choosing one student over another. This was a great practice, which will be very beneficial in the future if I am one day in the position to hire new employees. Also, the experience of being at the “employer’s side” will certainly be helpful for my future applications.

Once I had chosen my favourite students, I had to wait for the final pairings to be made by DAAD. Luckily, my project was chosen and soon afterwards my first choice student started working with me in the lab. He was a talented student from the US with a good knowledge of basic molecular biological techniques. After making him familiar with the project and new techniques, he quickly started working very independently. It was great having someone working on the same project with whom I could share ideas, and our collaborative efforts were in the end very fruitful. Aside from his experiences in the lab, he also learned something about German botany, in particular that it is not such a great idea to jump into a bush of stinging nettle to catch a frisbee.

On the other hand, we in the lab also learned about life at a US-American university. In fact, having heard about the research at the home university of my RISE student, a fellow PhD student later applied for a postdoctoral position at this university.

This overall very positive experience with the DAAD RISE program convinced me to apply again the following year. This time a highly motivated undergraduate from Canada came to work with me. She was very interested in German culture, spoke German fluently and was most deserving of the RISE scholarship and the chance to actually get to know Germany. In the lab, she was a bright student and a great help. Her curiosity made me think more about many routine methods that I had not previously given much thought. In addition it turned out that she had a lot of experience in website design. At the time we were creating a website to make the data from my project available

Martin Distel graduated in 2003 from the Technische Universität München with a Bachelor of Science in Molecular Biotechnology. In 2005, he earned a Master of Science in Molecular Biotechnology from the Technische Universität München and the Lund University in Sweden. He finished his PhD in Neuroscience at the Helmholtz Center Munich and the Technische Universität München in 2009 and will pursue his Postdoc studies at the University of California San Diego (USCD), funded by the DAAD Postdoc scholarship program, in 2010.

to the scientific community, and her expertise in programming was an invaluable help. After the internship was over, she decided to stay in Germany and spent the following year studying in Freiburg.

My participation in the RISE program was a great experience, during which I learned a lot about what one might call “leadership”. I thank my two students for their fantastic work and DAAD for offering such a great program. I strongly encourage PhD students and undergraduates to take advantage of this unique opportunity.



Munich at sundown



Every Time I've been to Germany ...



Jonathan Cox

RISE Participant in 2007,
Technische Universität
Dortmund

... it has had a profound influence on my life. Sadly, I have not yet been back to Germany since my participation in the RISE program in the summer of 2007 but I am looking for a way to return. I am currently a graduate student at the University of Washington pursuing a doctoral degree in chemistry. The RISE program had a huge impact on my life. It helped me see that I could actually succeed in an academic research setting. Upon conclusion of my PhD I am very interested in doing postdoctoral research in Germany. I'm now in the process of applying for other fellowships to return to Germany.

When I decided to apply for the RISE program, I was doing my undergrad at the University of Utah. During my time with RISE, aside from my project at my host institution in Dortmund, I was able to also visit with other researchers in Braunschweig and tour their facilities. This became possible when a professor at Utah found out that I was going to Germany for the RISE program. He arranged for me to meet with some of his German collaborators, and upon my return from Germany I actually started doing research for one of those professors. We have also had visiting students from Braunschweig work with us here at the University of Utah. It was a great experience.

I could already speak German fluently before my time in the RISE program because I lived in Germany previously. My undergraduate degree is in Chemistry and German, and during my time in the RISE program I was able to enroll in a German language course at the University of Dortmund that my home university credited towards my degree. Now I continue to learn German by reading German literature and keeping in contact with my German acquaintances.

I am still in contact with a lot of people from Germany. I keep in touch with many of the friends I met who were also in the RISE program and some of the people I worked with in the lab. It is all mostly through Facebook and email. It has been rather enjoyable keeping track of everyone I met that summer, and seeing us go our different ways after college and into grad school.

I would like to emphasize that my participation in the RISE program was a predominant factor in my decision to pursue a graduate level education in chemistry. The RISE program was great in the fact that it allowed me to do research in an academic setting. I had my own project and was able learn what research was like first hand. This experience prepared me for the challenges of day to day life that arise when doing research. It was such a great experience for me that I recommended it to all of my students when I was a teaching assistant last quarter here at my current position at the University of Washington.

Jonathan Cox is currently a graduate student pursuing a PhD in Analytical Chemistry at the University of Washington in Seattle. Originally from Salt Lake City, Utah, he completed a BS in Chemistry and German from the University of Utah in May 2008 and an AS in Chemistry from Salt Lake Community College in May 2006.

A Perfect Choice



Lena Hyatt

RISE Participant in 2007,
Universität Gießen

My decision to participate in the RISE program was largely based on the opportunity for adventure and learning in a new environment. The fact that it was also a paid internship greatly enhanced its appeal. I knew very little of German culture and almost nothing of the German language, as I had previously learned Spanish and studied abroad in Costa Rica. I thought the RISE program would be my first and last trip to Europe, but I could never have predicted how it would impact my life in the future. I could not have imagined returning time and time again to Germany and for it to become a place I call my home.

I participated in the RISE program in Gießen, Germany. I had chosen the project based on its merit alone, deciding not to look at the city where the internship was offered. Although Gießen does not look like a “typical” German city, I still liked living there a lot. It was small enough to get to know the best restaurants and bars, but it was also only one hour from Frankfurt. This allowed me to travel throughout Germany and Europe on the weekends. In the end, it was a perfect choice, but also for reasons more than its accessibility.

My project involved studying the DNA mismatch repair system in *E. coli*. It was an interesting project, and it was also my first time learning protein biochemistry. Everyone in the lab was very friendly, and we would often go after work for dinner and drinks. There was one person who caught my eye in particular, and he definitely made my three month internship something unforgettable. We took weekend trips and spent a lot of time together, without thinking of the date when I would have to return back home. When I returned to the USA, we both made no promises except to try and keep in touch.

We certainly did that. We found ourselves speaking on the phone and writing emails nearly every day, and I returned to Germany during my fall break to visit him. I was nervous at first that something may have changed, but that week was as perfect as it had been during the summer. We continued to keep in touch, and we were able to see each other once every three months. I knew I wanted to return to Germany.

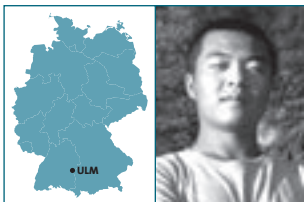
As a budding scientist, it was an easy and natural choice to continue my higher education in Germany. I would lose no time or opportunities by moving to Germany to complete my scientific goals. The DAAD has an excellent database of Master's and PhD programs along with those programs' requirements and websites. Upon searching biology and biochemistry options, I found an international MSc / PhD program that seemed like the perfect fit for me. It was designed like the PhD programs I was familiar with, it was associated with the Max Planck Institutes, and it had won an award for being one of the top ten Master's programs in Germany. The information office there was so helpful and provided me with everything I needed. It was a very easy choice to decide to go there once I was accepted to the program, and I am currently enrolled in the International Max Planck Research School for Molecular Biology in Göttingen.

The DAAD has continued to be an invaluable resource for me. I am supported by a DAAD Study Scholarship for post-bachelor studies, and this scholarship has helped me acclimate easily to the new city. As the program is international, with students from countries like Turkey, China, and Colombia, the course language is English. However, a major goal of mine this year – besides learning more molecular biology – is to become fluent in German. I will be participating in German courses throughout the year with hopes to improve my language skills. I am also living with two other German students in a shared apartment, so I'm

excited about the years to come. I feel perfectly at home here, and the program is more than I could have asked for. I am proud and a little surprised to say that the single three month internship with the RISE program changed my life's course. It was certainly nothing I could have foreseen, but nothing I would ever change either.

Lena Hyatt graduated from the University of North Carolina at Chapel Hill with a Bachelor of Science in Chemistry. Currently, she is a Master's student at the International Max Planck Research School in Molecular Biology in Göttingen, Germany.

The Land of Craftsmanship



Liang Lu

RISE Participant in 2007,
Universität Ulm

I was born in Harbin, a major city near the China-Siberia border. As a young accordionist growing up in the neighborhood of Harbin Medical University, I repeatedly came upon the saying of “German-Made”, from my music teachers who praised the quality of their Steinway pianos, and from the medical technicians, who lauded the durability and accuracy of their Siemens instruments. Since then, Germany, in my mind, is the land of delicate craftsmanship and great accuracy.

As I immigrated to the US with my family and became increasingly interested in biomedical sciences, I was impressed that so many discoveries in medicine and physiology were made by

As a young accordionist growing up in the neighborhood of Harbin Medical University, I repeatedly came upon the saying of “German-Made”, from my music teachers who praised the quality of their Steinway pianos, and from the medical technicians, who lauded the durability and accuracy of their Siemens instruments.

Liang Lu

German physicians and scientists. I really hoped I could visit Germany sometime. Thanks to the RISE program, I had a chance in the summer of 2007 to work under the guidance of German professors and graduate students, from whom I observed not only the diligence of German scientists, but also the splendid history and culture of this country. After my internship, I have come back to Germany twice, the first time was to visit my cousin, who studies Automobile Service and Engineering in Munich. I am now doing my PhD studies in the Max Planck Institute of Molecular Cell Biology and Genetics (MPI-CBG) International PhD program in Dresden. This program lasts for about four years, and I am glad that I have the opportunity to travel around Germany and Europe some more.

I still exchange emails regularly with my RISE mentor. My home university, the Georgia Institute of Technology, has already established several programs with German universities, but the study abroad office puts announcements for RISE and RISE professional.

Liang Lu graduated from Georgia Institute of Technology with a Bachelor of Science in Biomedical Engineering in 2009. He is currently enrolled at the Technische Universität Dresden, where he is studying in the Postgraduate Program in Regenerative Medicine at the Max Planck Institute of Molecular Cell Biology and Genetics.

Year
2008

From RISE Participant to Teacher



Kristina Faulkner

RISE Participant in 2008,
Universität Duisburg-Essen

My name is Kristina and I am from Canada. In the summer of 2008 I had the opportunity to go to Germany through the DAAD RISE program. The city of Essen became my home for three months and I worked alongside a PhD student at the University of Duisburg-Essen. At the time my knowledge of the German language was limited and as somebody who had never been away from home, I was what you could call an inexperienced traveler. This, however, changed rapidly as I became more confident getting around and found it easier to meet new people. I got to travel around parts of Europe and experience a culture that I knew only before from textbooks. At the end of the three

months I felt that I could have stayed longer if only there was something that I could continue with.

I went back to Canada with a yearning to return to Germany. I had one more year to complete for my Bachelor's degree and fortunately had enough room in my schedule to take a German language class at my university. This was a wonderful continuation for my newfound interest for Germany and the German language. Early on in the first semester I came upon an intriguing offer through a German organization called the PAD (*Pädagogischer Austauschdienst*). It asked for students from Canada who had completed a Bachelor's degree to come to Germany for a year and be a *Fremdsprachenassistent* – or teaching assistant for English as a foreign language – in a school. I eventually want to study Occupational Therapy but I felt that in this moment I wanted to further explore other things of life such as traveling and gain more life experience. I applied to the PAD in December wanting to keep all my options open. At the end of April I heard back – I had been offered a position at a school in the smaller town of Arnsberg, about 40 minutes from Dortmund. I was for the most part ecstatic. I would get better acquainted with the German culture, get a break from school and learn about the education system in Germany! I was also a bit hesitant. I knew the impact that three months away from home had had on me – how much I had grown as a person, the independence that I had obtained and how all of a sudden I saw my life through a different lens. I was unsure how ten months away from home



Kristina Faulkner with her class in 2009



Bitte wieder



would impact me even further. I have since arrived in Arnsberg and have started assisting at the Franz-Stock-Gymnasium. Once again I am getting used to living in a new town and making new acquaintances. My German has improved substantially from last summer and I am excited to see how it will soar over the next months. It is wonderful to see the familiar faces of the people that I got to know last year in Essen and kept in touch with over the last year, but also to meet new people – other *Fremdsprachenassistenten* throughout Germany and the teachers and students at the school. I find it interesting as I look back at the past two years: I went from being a student whose only plan really was to finish her science degree and then continue in Occupational Therapy to living in another country, teaching English and learning German. Several things which really have nothing much in common at all – but rather doing those things that one finds oneself being most passionate about in a particular moment. My time spent in Germany for the RISE program has most certainly affected the path that I am on – and who knows what this time spent in Germany will lead to!

In 2009, Kristina Faulkner graduated from the University of Alberta with a Bachelor of Science in Biological Sciences and a minor in Sociology. She is currently working as an assistant teacher through the *Pädagogischer Austauschdienst* (PAD) at the Franz-Stock-Gymnasium/-High School in Arnsberg, Germany (2009–2010).

German High Speed Trains – Great Research and Excellent Traveling!



Ty Prouty

RISE Participant in 2008,
Universität Stuttgart

I spent six months in Germany with the RISE and RISE professional programs, through which I gained experience in both an academic setting and an industrial work place. For three months, I was a research assistant at the University of Stuttgart. There, we investigated a method for determining the electrification potential of rail lines. I also spent many weekends exploring Germany and Europe.

The next three months I moved into an industrial research facility, where I created a computer program for testing high speed trains. My stay in Munich was just long enough for me to take in the *Weihnachtsmarkt*, which was beautiful.

I returned to Canada with the motivation to finish my degree and the intention to begin a Master's program in Germany. After nearly six years in school I thought I would never consider a second degree, but after seeing the opportunities in Germany, I had to rethink.

Since my stay in Germany, I have remained in contact with one of my supervisors and many other friends, some of which will be visiting me in Canada and others that I may work with in the future. They've also been wondering when my next visit will be.

I've since become the president of my university's German Club and I have continued studying German. We have a *Stammtisch* every week, throw several parties and both make the German exchange students feel welcome and give our German language students more exposure to the language and culture.

Ty Prouty graduated with a Bachelor of Science in Mechanical Engineering at the University of Alberta, Canada, in December 2009.



Ty Prouty and his colleagues determining the electrification potential of rail lines

Cutting-edge Research and Life-altering Experiences



Christine Schwall

RISE Participant in 2008,
Universität Duisburg-Essen

The time I spent in Essen, Germany during the summer of 2008 conducting research concerning the binding of various block copolymers to silicon wafers and studying the effects of these various concentrations on the ability of nanoparticles and proteins to bind changed my life. I fell in love with the German culture (I traveled to multiple cities across Germany) and Europe while I was there and during the summer of 2009 I went back to travel Europe for almost a month with one of my college roommates and we visited London, Düsseldorf, Berlin, Munich, Salzburg, Zürich, Milan, Rome, Barcelona, and Madrid. However,

I regret that I have been unable to consistently stay in contact with the doctoral students that I worked with when I was in Germany. While I email my mentor occasionally, it is not as often as I would have liked. On the bright side, I do keep in contact with one of the other US-American students who also worked in the chemistry department at the same German university as I was, the University of Duisburg-Essen. We became very close while we were in Germany and even though we live in different states that are across the country from one another, Colorado and New York, we have each visited the other person once in the past year. I also regret not having learned German while I was participating in the DAAD RISE program. I wish that I had taken the intensive German course that the RISE program had offered or that I had tried harder to communicate with the older people in the community where I lived who only spoke German, so that I could have become more familiar with the German language. However, my mother and brother came to visit me while I was living in German and they were both so enthralled by the German language that they were motivated to take German classes back in the United States!

My home university, which is Fordham University in the Bronx, New York, had other students participate in the DAAD RISE program in years previous to my going to Germany, but after I participated in the program, I was asked to speak about the program and my experience to other students interested in research, and applications to RISE from students at my home

The Dean of Fordham College, the school I attended within Fordham University, wanted me to speak to incoming students because I had such a unique research experience and it truly changed me and helped me to grow as a person.

Christine Schwall

university have increased. Not only that, but I have also spoken about my experience to the general incoming freshmen class at Fordham. The Dean of Fordham College, the school I attend within Fordham University, wanted me to speak to incoming students because I had such a unique research experience and it truly changed me and helped me to grow as a person. Everyday, I am so grateful that I had the chance to live in Germany, take part in a fabulous research program, travel to Heidelberg for the RISE conference, where I was able to visit BASF, a German chemical company, and that I was living in Germany when they made it all the way to the Euro Cup Final! Thanks to the DAAD RISE program, I made lasting friends, fell in love with Germany, and had the experience of a lifetime.

Christine Schwall attended Fordham University, New York, where she majored in Biology and minored in Chemistry and Sociology. While at Fordham, she conducted research involving peptide nanotubes and their role in mitigating the aggregation of the peptide hormone glucagon. Christine graduated summa cum laude with a Bachelor of Science degree from Fordham University in May of 2009. Currently, she is a first-year graduate student in the Molecular and Cell Biology Department at the University of Connecticut working toward her PhD in Biochemistry.

RISE shaped my Plans for the Future



Robert Reed

RISE Participant in 2008,
Technische Universität
Bergakademie Freiberg

I haven't had a chance to return to Germany after my internship ... yet. I made some very good friends in Germany while I was there and I hope to return soon to visit with them and see more of the country. Living there in the summer of 2008 was the best time of my life! I planned on applying for a RISE professional scholarship for last summer but I was unable to, as most of them required a length of stay that would have interfered with my plans for going to graduate school in the US.

In 2008, I was in Germany for about two-and-a-half months while working on my internship in Freiberg. After my internship, a friend from Seattle met me in Berlin and we traveled for three weeks in Poland, Slovakia, Hungary, and Turkey. I would love to live in Germany for a longer period of time! I plan on looking for jobs in Germany and elsewhere in Europe after finishing my education in the US.

I am in contact with several people from Germany. One was my dorm-mate in Freiberg, and he even invited me back to stay with him and his family in Görlitz at the end of the summer. It is one of my best memories from my stay in Germany. I am also in contact with a girl whom I was working with at the university, and she invited me to her home a couple of times for dinner. I feel that the people I met in Germany were all very nice and I hope to return to make more friends soon.

When I was moving to Germany for the summer, I was excited to speak with the people there in German, because I had taken a year of college German classes. When I arrived, I found that I had forgotten most of it! Over the summer, I worked hard to improve my language skills, and by the end of my internship I could take part in conversations with my new friends. I haven't continued to learn German as I have been very busy with other things in life, but any time I see something written in German I try to read it.

City of Görlitz



I would say that my internship in Germany was an outstanding success. While I was in Germany I decided I wanted to go to grad school, as I was previously undecided. I think having the international research experience that RISE provides really helped improve my application, and I was accepted to three PhD programs in environmental chemistry. I decided to accept an offer from the Colorado School of Mines, and I am very happy here now. I hope to return to Germany as soon as possible!

Robert Reed is currently a PhD student in Environmental Chemistry at the Colorado School of Mines. He graduated from Western Washington University in Bellingham, WA, in June of 2009.

Reaching for the Stars



Anthony Harness

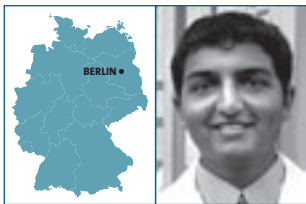
RISE participant in 2008,
Hamburger Sternwarte /
Observatory at the
Universität Hamburg

My name is Anthony Harness and I spent the Summer of 2008 in Hamburg, Germany working at the *Hamburger Sternwarte* (observatory), part of the University of Hamburg. I am now a Senior Astronomy / Astrophysics major at the Florida Institute of Technology. I unfortunately have not been able to return to Germany, nor Europe, since I finished my internship, but hope to in the near future. My internship through the DAAD was a great opportunity as it gave me the experience in my field that put me a step above my classmates. This previous summer I did an internship at the SETI Institute (Search for Extra Terrestrial Intelligence) in California. I believe 100 percent that I was able

to get this internship because of my previous experience with the RISE program, and from my letter of recommendation written by my advisor in Germany. Speaking of which, I still maintain a personal and professional relationship with my former advisor. He has written me letters of recommendation, helped me with recent projects I worked on, and we still communicate as friends. I also occasionally talk with other friends that I made while in Germany. As for my German language skills, I still try to learn German in my spare time and enjoy watching movies in German, or listening to German music. Overall, I had a great experience in Germany which has allowed me to thrive in my scientific community, and still affects me to this day.

Anthony Harness is currently a Senior at the Florida Institute of Technology located in Melbourne, FL. He is triple-majoring in Astronomy / Astrophysics, Physics, and Mathematical Sciences and will be receiving his Bachelor of Science in all three in May, 2010.

Total Immersion



Aniruddh Patel

RISE Participant in 2008,
Charité Berlin

I participated in the RISE program during the summer of 2008 and it was a wonderful experience. In addition to working in a different laboratory environment, I enjoyed participating in everyday life and activities, and I readily immersed myself in the culture of modern Germany. Since then, I have completed my undergraduate studies at Washington University in St. Louis with majors in biochemistry and anthropology and my experience in Germany gave me the motivation to complete my minor in German by finishing up final coursework during my senior year.

Being in Germany and speaking German in my lab as well as in everyday life helped me become immersed in the language

and gain confidence in my abilities. Before my internship, I was comfortable with writing and listening, and after the internship, I became more at home with the reading and speaking aspects of the language. During my internship, I had the wonderful opportunity to travel all around Germany and its surrounding countries as my home base was Berlin. I was able to become very familiar with the European style of public transportation, and my travels only whetted my appetite for Europe. This past summer, I returned with my parents and we further explored central and southern Europe. I have made friends of my mentors in the lab I interned in.

When I returned to school after my internship, I talked about my great experiences in the program with my professors and classmates. Subsequently, I coached another student through the application process and he was a RISE scholar in Leipzig this past summer; another student I coached will be applying this year. The German department now strongly encourages the science students studying German to apply.

Aniruddh Patel received his Bachelor of Arts with summa cum laude from Washington University in St. Louis in May 2009 (two majors: Biochemistry and Anthropology, minor: German). He is currently pursuing his Doctor of Medicine degree (MD) at Yale University.

Coffee to go

Small
Medium
Large

Espresso
Cappuccino
Latte
Mocha
Americano
Cold Brew

Price
\$1.50
\$2.00
\$2.50

9:00 - 16:00



Getränke

Speisen

Selbstbedienung

Getränke			
Bestandteil	Einzel	Doppel	Einzel
Starkbier	2,00 €	3,50 €	5,00 €
Maßbier	1,50 €	2,50 €	3,50 €
Spezialbier	2,00 €	3,50 €	5,00 €
... (other items)

gebühret tief. w



My colleagues also supported cultural exchange and were especially appreciative of my attempts to introduce them to American cuisine such as lemon meringue pie.

Kendell Paweleck

RISE: Research and Beyond



Kendell Paweleck

RISE Participant in 2008,
Universität Jena

Even though I haven't returned to Germany since my RISE internship, I definitely anticipate visiting Germany again. My stay of three months, right next door to the Thüringer Wald, was great – filled with many warm and friendly people and many cultural experiences. I could definitely imagine living in Germany for a longer period of time. I only hope I get the opportunity!

My German, which was rudimentary before I participated in the RISE program, improved tremendously during my internship. My peers and co-workers were extremely patient with my halting attempts and encouraged me to speak German at every opportunity. My colleagues also supported cultural exchange

and were especially appreciative of my attempts to introduce them to American cuisine such as lemon meringue pie.

While my participation in the RISE program did not spark any research partnerships, it has led me to become a Young Ambassador for the DAAD. After completing my training in August, I've been working to inform undergraduates and grad students about the exciting opportunities available in Germany. Another goal, which I hope to accomplish this year, will be speaking with faculty about what they could gain from contact with Germany.

Though I haven't been back to Germany since participating in the RISE program, I still keep in touch with colleagues and friends – practicing my German by exchanging e-mails. We trade news, research, jokes – even recipes! A message from Germany in my inbox always brings a smile to my face.

Kendell Paweleck participated in RISE in the summer of 2008 and currently attends Michigan State University. She will be graduating in May of 2010 with a BS in Materials Science and Engineering. She is also serving as a Young Ambassador for the DAAD for 2009–2010.

A Step in the Right Direction

Interview, Summer of 2008

Questions by Maike Steuer, DAAD



Daniel Veal

RISE participant in 2006 and 2007, Universität Bonn;

RISE professional intern, BASF, Ludwigshafen, Germany, 2008

'RISE' should be Dan Veal's middle name because he managed to spend a total of three summers in Germany as a scholarship holder of this program. Two times – in 2006 and 2007 – Dan Veal participated as a RISE intern while studying to obtain his Bachelor's degree in engineering at the University of Chattanooga, Tennessee. He returned to Germany as a graduate student and participant in the RISE professional program in the summer of 2008.

How did you find out about RISE?

While looking for a summer program in Germany a professor mentioned he had heard that the DAAD offered a lot of different scholarships for foreigners. I checked out the website and RISE was one of the first programs that popped up.

Why did you apply for the program?

My family lived several years in Italy and my dad is British. I love Europe, the culture and the people. I took up RISE as a chance to go abroad since German language skills were not required, and I was keen to learn the language.

Which differences between Germans and Americans did you recognize?

The Germans think and act very pragmatically. It's amazing how their brains work. Also recycling and environmental protection is a big topic that is important for most Germans. Another thing I discovered is something Americans would never bear: At BASF they don't have air conditioning in the offices. If it gets too warm, they just open a window.

Why do you think studying or doing an internship in Germany is not so popular among young Americans?

Those who have lived their entire life only in the US have no clue, in most cases, what is going on in the rest of the world. I think there are two kinds of students: those who actually apply for programs like RISE and those who only envy you, saying: "Oh, that's so cool! I wish I could do that as well," but never get past the wishing. I don't know what these people are lacking.

How have the internships in Germany changed you?

It might sound a little exaggerated but RISE has changed my life. The scholarship in 2006 was the first step in this direction and has influenced everything that happened afterwards. Also I have become more outgoing, more self confident and relaxed.

To what extent?

My first summer was like a tornado. I didn't spend one single weekend in Bonn where I did my internship. But this kind of "blitz traveling" doesn't appeal to me anymore. I enjoy the culture now much more, hang out with friends at the river, having a barbeque. Sometimes I even bake a cake or cook together with friends. Social stuff like that has become really important for me.

Why did you apply for RISE / RISE professional three times in a row?

My first internship at the University of Bonn was a lot of fun and working together with my PhD student, a guy from Serbia, was great. That's why both of us said: Hey, let's apply next year again and team up once more. The internship wasn't really related to my studies but the personal experience was really valuable for me. Now with RISE professional at BASF it's the other way around. My research, in the area of thermodynamics and stream engineering, is not only useful for another project but also made me use some of the equations I had to learn at university.

**It might sound a little exaggerated
but RISE has changed my life.**

Daniel Veal

*Two summers in Bonn, one in Ludwigshafen
– what's next?*

Würzburg! In October I will join a Master's program as a scholarship holder of Erasmus Mundus. It's an interdisciplinary program focused on Europe with a really cool name: "Space Master." I will then spend the second semester in Sweden and complete the second year in England.

And afterwards – a PhD in Germany?

Who knows? If I really decide to do a PhD, Europe would definitely be my first choice. Especially Bonn is really great because that's where I have lived the longest time during my stay. I don't feel like a tourist there. That's why the city has a special place in my heart.

Remarks from Toulouse, France, October 2009:

It's now fall 2009, and I still find myself in Europe! What started with a simple internship in Germany continues to be the adventure of my life. I indeed started the two-year Space Master Erasmus Mundus program in September of 2008, and during the first year spent one semester in Würzburg in northern Bavaria, and the other semester in Kiruna, in the far north of Sweden. What a difference between the two places, going from enjoying time at *Oktoberfest* in Munich with a group of classmates, to just a few months later gazing up at the Northern Lights inside the Arctic Circle! Now in the third semester, I am living in Toulouse, France, taking space science classes in French. In the

spring I will complete my fourth and final semester of studies writing a research thesis, but will not know until the end of the year in which location this will happen.

To be clear, I don't tell this story to brag about anything or to say everyone should try to follow this same path. What I sincerely hope is that it gives some inspiration to anyone thinking of stretching themselves, trying something new, or taking a step into the unknown. There are so many opportunities out there for the taking, RISE being just one example. It has for sure been frustrating and scary at times, but it's exactly this that has helped me develop and gain a much fuller understanding of the world and of myself. Maybe an experience abroad will change your life, maybe it will simply make you appreciate home more, but it is for sure out there for the taking and will definitely be worth it!

Daniel Veal graduated from the University of Tennessee at Chattanooga with a Bachelor of Science in Mechanical Engineering in 2008. He is now pursuing his Master in Space Science and Technology at Luleå University of Technology (Kiruna, Sweden) and the University of Paul Sabatier (Toulouse, France). Daniel Veal will graduate in Fall 2010.

Historical German Butcher's Sign



Year
2009

Pineapple Chicken with a Nobel Prize Winner

DAAD Blog Entry, July 30th, 2009

<http://www.daad.de/blog/author/fanyi-meng/>



Fanyi Meng

RISE Participant in 2009,
Research Center Jülich, Aachen

Today, I had lunch with a Nobel Prize winner. His name is Peter Grünberg and he is one of the Nobel Prize recipients for Physics in 2007. Yes, Nobel Prize winners are humans just like the rest of us but you can't deny that it's a bit awesome. Dr. Grünberg, along with Albert Fert of Université Paris-Sud in France, discovered giant magnetoresistance, a phenomenon that basically allowed the jump from gigabytes to terabytes in hard-drives and changed modern computer technology forever. I knew that

a past Nobel Prize winner worked at the Research Center Jülich, as it was clearly advertised on banners lining the entrance to the research compound, but it would never have occurred to me in a million years that I would in fact meet him and under such informal circumstances. An acquaintance within our group used to work for Dr. Grünberg and invited him to dine with us. And just like that, I had the honor of eating a pineapple chicken with rice beside someone who revolutionized the computer industry. We chatted a little bit about Canada and I found out that he did his post-doc at Carleton University in Ottawa – my city! Perhaps my fate in the world of academia will be changed forever from being in such proximity of a brilliant mind.

Fanyi Meng is a third year student in Environmental Chemistry at McGill University in Montréal, Québec. As a RISE participant of 2009, she has been working at the Research Center Jülich, Aachen with Nicolai Jablonowski in her field of study and has been acting as a blogger for RISE 2009 during her entire research stay in Germany.

From California to Niedersachsen: Coming to Germany for Graduate Study



Sean Whitty

RISE Supervisor in 2009,
Technische Universität
Braunschweig

During my final oral examination for my Master of Science degree in Computer Science at the University of California, Davis in the summer of 2005, I had to struggle to stay focused. With my degree unofficially just minutes away, I could not help but allow my mind to wander to the adventure on which I was about to embark: spending a year at a German university as a visiting researcher.

During my five years at UC Davis, I completed a BS in Computer Science and Engineering and an MS in Computer Science

with an emphasis in Computer Architecture. Unfortunately, the heavy workload required to complete both degrees in five years left no time for semesters abroad or other extended international experiences. At no point was I more aware of this fact than during the final weeks of my studies at UC Davis, when I wondered in dismay if I had hurried through one of the best experiences of my life without stopping to enjoy many of its benefits, such as academic and cultural exchange in another country offered by study abroad and internship programs. Vowing not to make that mistake twice, I set out to plan a year at a foreign university after completing my MS. Relying on my two degrees, solid recommendations, and strong GPA, as well as a few years of high school German and a language refresher at UC Davis, I selected Germany as my top destination and began contacting universities. My choice was based on Germany's important role in state-of-the-art science and technology research and development, the good quality of its many universities, and my very positive experiences with the country and its people during short summer trips to Europe. After searching for some weeks, I found a paid position as a member of the research group at the Institute of Computer and Communication Engineering at the Technical University of Braunschweig.

Despite its many differences with the American university system, I thoroughly enjoyed my year as a guest researcher. It involved numerous challenging technical tasks, access to cutting edge research and equipment, and interactions with highly

I speak fluent German, but have also have adapted my English to be more “international” and speak more slowly and clearly.

Sean Whitty

knowledgeable PhD students, professors, and other academic as well as industrial partners. And while these characteristics can be found at most universities around the world, my twelve months in Germany also offered a fascinating cultural experience to a young American student who had only lived in one place, California, for his 23 years. After completing my original project and faced with the opportunity to return to the USA, I realized I was not quite ready to end my experience abroad. When I was offered the opportunity to remain and join the PhD program, as well as an ambitious EU-wide project to develop a high-performance reconfigurable computing architecture, I happily accepted.

Three years into my PhD studies, I still enjoy every day of my experience abroad. I ride my bike to work and rely on public transportation and trains for longer trips. I have traveled extensively throughout the EU for both work and pleasure. I speak fluent German, but have also adapted my English to be more “international” and speak more slowly and clearly.

I have also had the opportunity to supervise numerous students from countries all over the world, including the USA, through programs such as the RISE program, and to witness them undergoing similar changes and learning to appreciate similar aspects of life in Germany as myself. Young students, much like me in my first year in here, join us for short- and long-term DAAD sponsored internships, to write Bachelor theses, or to pursue a Master of Science. Some remain for the PhD program.

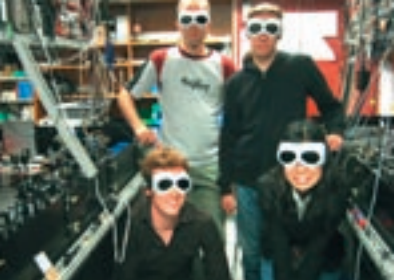
All leave with a better understanding of the cultural diversities in our world and a newfound desire to expose themselves to more of them. Extended stays in foreign countries are most certainly not for everyone. But for the open-minded students willing to immerse themselves in another culture, an internship through RISE offers an excellent opportunity for both academic and personal development, and opens the door not only to further study in Germany, but to a world of new possibilities.

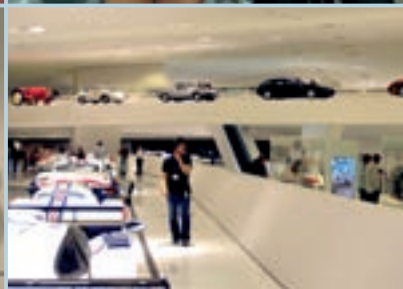
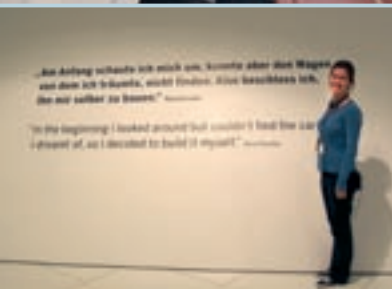
In June 2004, Sean Whitty earned his BS in Computer Science and Engineering at the University of California, Davis. In August 2005, he received his MS in Computer Science at the same university. Currently, Sean Whitty is pursuing his PhD in Electrical Engineering at the Technische Universität Braunschweig, Germany.











This program is an excellent gateway for students to expand their horizons, to start learning to work effectively across cultures and languages, and to develop relationships that may lead to future collaborations.

Lourdes E. Echegoyen, PhD Manager, Global Education and Exchanges
Director, ACS-IREU program, American Chemical Society, USA

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Inside and outside the research laboratories there is no question that Germany provides some of the best conditions for scientific and social progress.

Efrain Gutierrez, Brigham Young University, Utah, USA
RISE intern at the Technische Universität Darmstadt, Germany (2008)

*

I had the independence of having my own specific project to work on, while at the same time being mentored by a PhD student.

Margot Bowen, Duke University, Durham, USA
RISE intern at the Max Planck Institute in Tübingen, Germany (2008)

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In the end, I had the time of my life, and found this to be a valuable experience in terms of scientific research, exposure to foreign cultures, living independently [...].

Michael Geier, University of California, Berkeley, USA
RISE intern at the Universität Duisburg-Essen, Germany (2008)

The biggest difference between the RISE program and domestic internships available in the United States is the opportunity for personal growth through experiencing life abroad.

Vanessa Palmer, University of Washington, Washington D.C., USA
RISE intern at the Research Center in Leipzig, Germany (2008)

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The Université de Sherbrooke has participated in the RISE program for the last three years, and in that time, the number of students participating nearly doubled from year to year. This shows how much our students appreciate the program and how they pass their enthusiasm on to other students.

André A. Rousseau, Sciences Program Manager,
Université de Sherbrooke, Québec, Canada

*

Living and performing research in Germany was a life changing experience for me. There is no better way to learn about yourself and grow than living alone in a foreign country.

Rebecca Getman, University of Kansas, Lawrence, USA
RISE intern at the Freie Universität Berlin, Germany (2009)

Partners and Sponsors

The Transatlantic Program of the Federal Republic of Germany has supported RISE through funding from the European Recovery Program (ERP) of the Federal Ministry of Economics and Technology for the past five years. Additionally, RISE is funded by the German Federal Foreign Office. RISE is also supported by the individual efforts of doctoral students, young researchers, and academics.

We would like to thank our partners and sponsors, including numerous universities and institutes in Canada, Germany and the United States, without which this project would not be possible.

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Germany ►

Host institutions of RISE interns in 2005–2009



