

UNIVERSITY ALLIANCE RUHR



Ruhr Fellowship Program

June 5 - July 28, 2023





Dear Ruhr Fellows,

I am thrilled to extend a warm welcome to you as the Ruhr Fellowship Program 2023 cohort. As we emerge from the challenges of the past years, we are excited to come together in person and explore the evolving landscape of work and innovation.

In this rapidly changing world, we find ourselves at the forefront of a digital revolution that has transformed every aspect of our lives. The advancements in technology and the rise of the digital economy have created new opportunities and challenges that require us to constantly adapt and develop our skills. Remote work, artificial intelligence, blockchain, and other emerging technologies are shaping the way we live, learn, and work, and it is crucial that

we equip ourselves with the knowledge and mindset to thrive in this dynamic environment.

The 2023 Ruhr Fellowship Program will serve as a platform to highlight the importance of continuous professional development and foster an entrepreneurial mindset amidst the backdrop of digital transformation. Throughout the program, you will have the unique opportunity to engage with experts in our region who will provide valuable insights and perspectives to help you navigate the transatlantic landscape. Additionally, our cultural activities will provide you with a lens to experience the rich diversity and innovation of our region.

One of the key goals of our fellowship program is to enable you to build a strong international community. By connecting with like-minded individuals, entrepreneurs, and industry leaders, you will have the opportunity to forge meaningful connections that extend beyond borders. We believe that by fostering collaboration and nurturing relationships, we can collectively contribute to creating a brighter future.

As we stand at this pivotal moment in your professional journey, the choices you make today will shape your pathway for years to come. All the institutions at University Alliance Ruhr are committed to fostering collective action, building multilateral partnerships, and finding innovative and sustainable solutions that empower and enrich our world. Through

inclusive growth and a deep sense of community, we can create lasting impact and drive positive change.

I am delighted to welcome you to the 2023 Ruhr Fellowship Program. Congratulations on embarking on this transformative journey and seizing the opportunities that lie ahead!



Priya S. Nayar



Priya S. Nayar
Executive Director
UA Ruhr New York



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University Alliance Ruhr

The academic hub for research, teaching, studying, and networking in Germany's vibrant Ruhr area

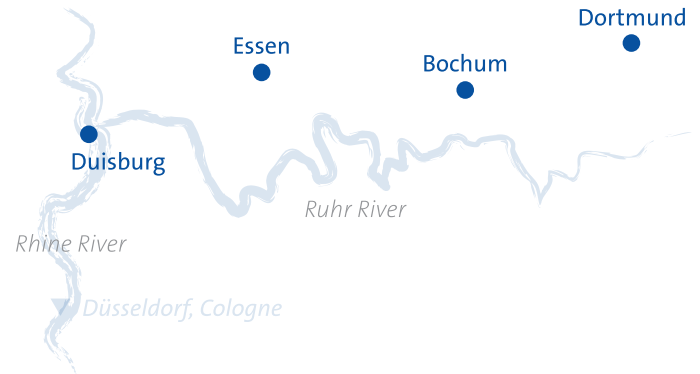
The University Alliance Ruhr is an alliance between Ruhr University Bochum, TU Dortmund University, and the University of Duisburg-Essen, the three largest universities in Germany's thriving Ruhr area. Each of our institutions has a strong tradition of breaking down walls between disciplines. We believe in the benefits of collaboration on all levels of scholarship and research, which is one of the reasons we came together in this unique university alliance.

More than 120,000 students, of which 19,000 are international, as well as over 14,000 researchers study and work within the UA Ruhr universities.

Together, the three universities have 850 partnerships with universities in over 130 countries, which provides our students and researchers with virtually unlimited possibilities for exchange and resources for development. To support our already strong global network of international exchange and collaboration, UA Ruhr has also created academic liaison offices for North America and Russia.

The Ruhr area is not only Germany's largest academic hub, but also an epicenter of innovation that fosters close interaction between academia and the private sector – and our alliance provides students and researchers from around the world with an open gateway to our region.

We invite you to learn more about the UA Ruhr alliance and our universities, and we look forward to welcoming you in the Ruhr area soon!





Program Focus Topics

Innovation and Entrepreneurial Mindset

We will find out what it takes to be an entrepreneur and how you can discover, assess and further develop your strengths. We will learn how to define a problem, work on live case models, practice pitching and develop business models. Throughout this course, we will connect with entrepreneurs and discuss with them what it takes to translate your idea into a business and reach global impact.

Business Communication

Within an organization and when interacting with supply chains and clients, effective communication is essential to the sustainability of a business. We will be discussing the skills and strategies to ensure everyone is consistently working toward common goals and that critical information is shared to

make those goals attainable. We will also cover communication boundaries, such as geographic, cultural, and technological.

Innovation/Technology

As technological change continues to accelerate and market demand changes, innovation is critical to a business's success. How does an organization decide what technologies to concentrate on, what products and services are ripe for innovation, and how change will be received by the market? What are the aspects of the German and American markets that drive innovation, and how do companies adapt to different demands when serving different markets?

Ethics/Diversity

The long and continuing history of relationships across cultures is an important context for all business considerations.

When managing a diverse workforce and presenting products and services to a broad market, ethical practices not only ensure a business is perceived as a community partner but also provide a more stable foundation for long term sustainability. We will discuss best practices and personal experiences as perspectives have evolved in Germany and the U.S.

Organizational Management

As businesses grow, the complexity of operations requires careful and intentional guidance in order to compete effectively. Managers can implement various strategies to address challenges as they arise, but a culture of continuous improvement can position a company to respond nimbly to issues that may not yet be visible. We will consider how company leaders balance risk and opportunity in changing environments and multinational markets.

Labor Laws/Labor Relations

Labor laws continue to develop in both Germany and the U.S. as employers, employees, and governments coordinate toward safe and successful workplaces. Collective bargaining organizations (unions) can play a major role in representing the needs of workers. Companies often work with advisors to ensure they have the best understanding of their obligations and what may be subject to change. We will discuss the current state of labor relations as well as development worth paying attention to.



Elizabeth Bielen



Christina Chen



Jason Ding

Participants

Elizabeth Bielen

Elizabeth is a rising junior at Lehigh University studying Civil Engineering with a minor in Spanish. Originally from New Jersey, she is passionate about water resources engineering, specifically to benefit developing communities in economically disadvantaged countries. As an active member of Engineers Without Borders, Elizabeth has been able to explore this interest first-hand. She recently traveled to a small, poverty-stricken community in the northwest Dominican Republic for an assessment trip of their water distribution system. Elizabeth will work with this community and a local NGO for the next two years to hopefully be able to provide

potable water for residents. On campus, she is a sister in Alpha Omega Epsilon, a sorority for women in engineering, and a Rossin Junior Fellow.

Christina Chen

Christina is a senior at MIT, studying mechanical engineering, computer science, and business management. She's passionate about combining technical and business skills to launch her own startup. Currently, she's working to build a tech product to support small restaurants with big orders from teams. Christina adores hiking, creating art, and connecting with people all across the globe.

Jason Ding

Jason is a rising junior at Princeton University concentrating in Operations Research and Financial Engineering and minoring in Computer Science and Machine Learning. He is from Mountain Lakes, New Jersey, and he has a variety of experience in nonprofits, research, and technology. At Princeton, Jason is a business associate for the *Daily Princetonian* and loves baseball, serving as a data analyst for Princeton's Varsity Baseball team and social chair for Princeton Club Baseball. His hobbies include playing spike ball and creating music, and he is also excited to explore the cultural and industrial landscape of Germany and Europe as a whole.



Lizzy Geraghty



Kade Kelsch



Sam Miller



Participants

Lizzy Geraghty

Lizzy Geraghty is a senior at the University of Cincinnati, studying Urban Planning with a focus on Design and Development Planning. She's actively involved as a Student Fellow at the Warren Bennis Leadership Institute and has gained leadership experience through her sorority. Lizzy can't wait to explore the Ruhr region and immerse herself in the German language and culture. In her free time, you'll often find her making the most of the region's public transportation system. After graduation, her goal is to pursue a Master's Degree in Community Planning and work internationally at a design firm. She's gained valuable practical experience with co-op opportunities from at a local, national, and regional scale.

Kade Kelsch

Kade is a rising senior at Harvard University pursuing an SB in Mechanical Engineering. Originally from Palmer, Alaska, Kade's hometown has inspired them to turn their skills towards sustainable engineering. They have worked on a variety of projects, including building a traditional wooden Japanese fishing boat and developing a new impact sensor. Last summer, they built an informative virtual reality microchip viewing platform for the Harvard NanoDesign Group. Outside of class, Kade dedicates up to 20 hours a week playing on the Harvard Women's Rugby team. They enjoy hiking, reading, woodworking, crocheting, rugby, and exploring the culture and cuisines of new places.

Sam Miller

Sam is a rising junior at Lehigh University studying Chemical Engineering and Business through Lehigh's Integrated Business and Engineering honors program. In his time at Lehigh, he has interned at two student-owned tech startups in consulting and product development roles and serves as a leader through involvement with the Lehigh Consulting Group and the IBE Council. Through LCG and IBE Council, Sam creates value for both Lehigh undergraduate students and the firms interested in hiring them by mentoring students, planning networking events to connect students and employers, and matching students with local startups so that they may gain experience in various industries.

In addition to professional/academic accomplishments, Sam is an avid outdoorsman who enjoys backpacking, skiing, and exploring the world around him. He is also excited to improve his German, as he is pursuing a German minor and perhaps a career in a German-speaking country!



Keya Nandi



Sophia Schwerin



Nađa Stojanović

Participants (continued)

Keya Nandi

Keya is a rising junior in Economics and Business Analytics at the University of Cincinnati. Originally from Delhi, India, she is passionate about studying and understanding the economic implications of a business's decisions as well as developing analytical solutions for growth. Last summer she got a chance to work with PwC India within Economic consulting where she worked on projects concerning the social sector. In the Spring 2023 semester she studied abroad in Cork, Ireland, where she undertook various courses related to her degree. At the University of Cincinnati, she has served as the Vice President of Marketing for the Business Honors Board as

well as the Alumni Coordinator for the Economics Society. In the program, she is excited to indulge in her passion for business in a multicultural environment as well as enhance her skills within her area of interest. Her interests include travelling, reading, dancing, and playing the guitar.

Sophia Schwerin

Sophia is a rising junior at the University of Cincinnati majoring in International Business, minoring in German Studies and a certificate in Business Law and Ethics. In the past years, she taught math and Latin at the nonprofit Breakthrough Cincinnati. Previously, she has had the privilege to study abroad in Germany, Croatia, and Russia. Currently, she is a Recruitment Officer for Lindner Women in Business, completing a research study on management, a student assistant for Lindner Undergraduate Office and volunteering for Breakthrough Cincinnati. In the future, she hopes to work in some form of business law. Some of her interests include hiking, kayaking, and cooking.”

Nada Stojanović

Nada is a rising junior at Lehigh University, majoring in Computer Science and Engineering with a focus in Data Science. She is from Podgorica, Montenegro. Nada is involved with multiple student organizations, and serves as a teaching assistant and grader. She is passionate about making coding accessible to everyone and helping students gain a deeper understanding of computer science concepts. As an aspiring data scientist, she believes that technology and data-driven insights can be used to tackle pressing issues in areas such as healthcare and environmentalism. This summer, she hopes to gain more hands-on experience in Machine Learning and research which will inform her future endeavors.

Partners (in alphabetical order)

We would like to thank our partner companies and organizations for their support in providing our students with the opportunity to gain valuable hands-on experience in a range of industries in the Tri-State area.



Business Metropole Ruhr

The Business Metropole Ruhr GmbH (BMR) develops and markets the Ruhr metropolitan area as an economic region. It bundles the economic interests of the 53 towns and cities in the area. This includes implementing and continuously evolving an overall economic strategy for the Ruhr metropolitan area as well as promoting the image of the area as a high-performing and innovative region, both nationally and internationally. As the economic development agency for the region we advise, market and realize projects that promote the Ruhr metropolitan area as a place to do business. For that we

are active in five different areas: internationalization and location marketing, site and investor service, project development in the lead markets, funding and innovations as well as structural policy issues. The goal is to enhance the competitiveness of the Ruhr region.

www.business.ruhr



Centre for Logistics and Traffic (ZLV)

The Centre for Logistics and Traffic (ZLV) brings together a variety of chairs for the interdisciplinary conception, management and transfer of scientific work related to global supply chains, logistics, mobility and transport from different departments of the University of Duisburg-Essen. ZLV is oriented towards innovations that are sustainable in the long term, economically beneficial, and ecologically and socially compatible. Our vision is to become an internationally recognised knowledge generation and transfer centre for excellent and innovative transdisciplinary research on

www.uni-due.de/zlv

global sustainable supply chains, logistics and mobility in a multi-level governance system. region we advise, market and realize projects that promote the Ruhr metropolitan area as a place to do business. For that we are active in five different areas: internationalization and location marketing, site and investor service, project development in the lead markets, funding and innovations as well as structural policy issues. The goal is to enhance the competitiveness of the Ruhr region.



EGLV

Emscher Genossenschaft/ Lippeverband

The Emscher Genossenschaft (Emscher Water Management Association) was founded on December 14, 1899, and was the first German water board. It later inspired the foundation of several other water boards, among them the Lippeverband, which was founded on January 18, 1926. Our activities in the Emscher region can be traced back over 100 years. Drawing on the vast experience gained during this time, we are able to offer services for the specific needs of the people and the commercial development of the Emscher river catchment area.

www.egl.v.de

As a public corporation, the Emscher Genossenschaft is supported by its members: cities, municipalities and mining companies as well as industrial, commercial and infrastructural companies.



Evonik

We may not manufacture tires, mattresses, medications, or animal feeds, but Evonik is part of all of those products –and many more. While we often contribute only small amounts of material, those contributions are precisely what make the difference. That's because Evonik products make tires fuel-efficient, mattresses more elastic, medications more effective, and animal feeds healthier. That's what specialty chemicals are all about. And when it comes to specialty chemicals, we're among the best in the world.

Evonik goes far beyond chemistry to create innovative, profitable and sustainable solutions for customers. About 34,000 employees, in more than 100 countries around the world, work together for a common purpose: We want to improve life, today and tomorrow.



Institute of Production Systems (IPS)

Future needs origin: The IPS and its predecessors (Chair of Manufacturing Preparation, Chair of Work and Production Systems) have been conducting research in the field of labor and time management since the 1970s. Since Professor Jochen Deuse took over the chair in 2005, we have been engaged in the further development of industrial engineering by transferring knowledge from computer science and statistics into domain knowledge. From the claim of a holistic and systemic view of production systems, our four core research areas quickly

developed: Work System Design, Industrial Data Science, Digital Factory and Dynamic Value Stream Design. We see ourselves as a research institution that drives the transformation towards digitalized industrial engineering. Starting from our hometown Dortmund, our claim is to carry this change also beyond regional borders. In doing so, we live the principle of “promote and challenge”.



ista SE

ista is an international leader in the management of energy and water consumption. We offer our customers smart technologies and services for the optimal use of the earth's valuable resources. Our products and services help increase transparency and efficiency and reduce CO2 emissions. That is how we make our buildings future-viable and future-proof for their owners and tenants. Worldwide we already have over 33 million connected devices in operation and are developing solutions for the intelligent and energy-efficient building of tomorrow. We employ roughly 6,000 people in 22 countries,

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our products and services are used worldwide in over 13 million units (apartments and commercial properties) by more than 400,000 customers. The extended ista Group recorded sales of EUR 976 million in 2021.



Masterflex

The Masterflex Group is the listed specialist for the development, production and marketing of sophisticated connector and hose systems made of high-performance plastics and fabrics. With six corporate brands and 14 operating subsidiaries in Europe, America and Asia, the Masterflex Group is represented almost worldwide. Our products and solutions ensure demanding and essential functions in high-tech sectors such as aerospace, medical technology, mechanical and plant engineering, the chemical industry, food and pharmaceutical technology and other important industries.

www.masterflex.de

In addition, the Masterflex Group also offers consulting and order-related development services as part of engineering services. The Masterflex Group has been listed on the stock exchange since 2000.

Partners (continued)



Taros

Taros, an independent and privately owned contract research organization, has been a trusted partner for pharmaceutical, biotech, and chemical companies since its establishment in 1999. Over the years, we have successfully completed more than 13,000 synthesis, research, and process chemistry projects, earning the trust of our ever-expanding global customer base. Our primary goal is to deliver holistic and cost-effective solutions of the utmost quality and reliability to the global marketplace. We take pride in our ability to provide exceptional value to our customers' research and development

(R&D) processes. By proactively anticipating hurdles and identifying opportunities for cost and lead time reductions, we empower our customers to gain a competitive edge and achieve an "early to market" advantage. With our state-of-the-art laboratory facilities and a diverse range of scientific expertise, we are dedicated to serving the evolving needs of our customers in the fields of drug discovery, custom synthesis, and specialty or performance chemicals. Our commitment to excellence extends beyond meeting expectations; we strive to exceed them by consistently delivering outstanding results.



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