

KARSTEN SCHROER

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EDUCATION

- University of California at Berkeley, US** 2022 (*exp*)
Visiting Ph.D. Scholar in Information Systems & Operations Management
Host: Prof. Thomas Y. Lee
- University of Cologne, DE** 2022 (*exp*)
Ph.D. in Information Systems & Operations Management
Advisor: Prof. Wolfgang Ketter
Awards: AIS Doctoral Consortium Fellow (2021), DAAD PhD Research Scholarship (tuition and maintenance) for research visit to UC Berkeley
- University of Cambridge, UK** 2015
M.Phil in Industrial Systems, Manufacture & Management
Grade: Distinction (top 5% of cohort)
Awards: DAAD Full Graduate Scholarship (tuition and maintenance), The Frederick Alfred Warren Prize (highest mark overall in research dissertation)
- University of Birmingham, UK** 2013
B.Eng in Mechanical Engineering with Business Management
Grade: First Class (top 5% of cohort)
Awards: three consecutive First Class Scholarships; Gilbert Walker Prize (most outstanding student in Mechanical Engineering & Commerce); Ellis, Linning and Sandifer Prize (most outstanding student in Mechanical Engineering program)
- International German School Brussels, BE** 2010
High School Diploma (Abitur)
Grade: 1.4

EXPERIENCE

- University of Cologne & UC Berkeley** Apr '18 - present
(*Visiting*) PhD Researcher & Academic Faculty Cologne, DE; Berkeley, US
- Researching data-driven decision making (econometrics/statistics, machine learning, optimization, simulation, reinforcement learning) with focus on future energy and mobility systems
 - Publishing first-authored papers at leading international information systems and OM/OR conferences and high-impact journals
 - Teaching "Data Science and Machine Learning" (Bachelor), "Advanced Seminar on Information Systems for Sustainable Society" (Master/Ph.D.), "Smart Sustainable Mobility" guest lecture (MBA/EMBA); supervising theses at Bachelor's, Master's and MBA level
 - Co-leading DE- and EU-level grant proposals (total funds acquired: EUR 228k) and managing industry research collaborations
- Institute of Energy Economics at the University of Cologne (EWI)** Oct '19 - Oct '21
Affiliated Researcher/Data Scientist Cologne, DE
- Co-led data-driven applied research projects in the area of smart electric vehicle charging and charging infrastructure planning including managing teams of up to three researchers/data scientists
 - Developed proposal materials for project acquisitions and delivered senior management and investor presentations (e.g., results presentations, workshop series on AI and the Smart Grid)

Roland Berger*Management Consultant, Energy & Utilities Practice*

Feb '16 - Apr '18

Duesseldorf, DE

- Led own work streams in large international strategy development and restructuring assignments in Europe and the Middle East for clients in the energy, oil&gas, chemicals and healthcare industries; extensive senior management exposure
- Managed small teams of up to three interns and junior consultants; acted as mentor for summer interns and new hires
- Contributed to project acquisitions by crafting proposal documents and participating in pitch presentations with senior management attendance; co-developed new RB offering in the area of AI-powered maintenance and prognostics

McKinsey & Company*Visiting Associate (Intern)*

Mar '14 - May '14

Berlin, DE

- Supported an operational excellence and store concept re-launch project for a global fashion retailer

Innogy Consulting (formerly RWE Consulting)*Junior Consultant (Intern)*

Dec '13 - Feb '14

Essen, DE

- Supported the development of a scenario-based outlook on the future of the Polish energy ecosystem and identified strategic implications for RWE (now Innogy)

Simon-Kucher & Partners*Associate Consultant (Intern)*

Aug '13 - Nov '13

Bonn, DE

- Supported the conceptualization and implementation of a web-based decision support tool for price promotions at a major German supermarket chain

SKILLS

**Programming
APIs &
Technologies**

Python, R, Julia, SQL, LaTeX, Git
machine learning (scikit-learn, TensorFlow, Keras), optimization (commercial (CPLEX, Gurobi) and non-commercial (GLPK, Ipopt) solvers, higher-level frameworks (JuMP, Pyomo)), large-scale simulation (SimPy), causal inference/econometrics (R and Python statistics packages), GIS (geopandas, h3, kepler.gl), big data (Google Cloud)

Languages

English, German (native), French, Dutch

SOCIETAL SERVICE & PERSONAL INTERESTS

Academic Service

Regular ad hoc reviewing activities for leading Information Systems conferences (ICIS, ECIS, WI) and journals (Journal of Information Technology)

Sports

Rowing at competitive level: currently at RG Benrath Rowing Club; previously at University of Cologne Rowing Club (2018-2020), Wolfson College Cambridge Boat Club (Boat Captain, 2014-15), Cercles des Régates de Bruxelles Rowing Club (2007-10), Siegburger RV Rowing Club (2004-07)

Societies

Berkeley Energy and Resource Collective (BERC), Haas Technology Club, Wolfson College Cambridge Mayball Organizing Committee (2015); James Watt Undergraduate Society Birmingham (2010-13)

HONOURS & AWARDS

AIS Doctoral Consortium Member 2021, Association for Information Systems (AIS)

One of only 40 PhD students globally to be invited to the prestigious ICIS Doctoral Consortium 2021 in Austin (Texas); competitive peer review-based selection process; fully funded.

DAAD PhD Research Scholarship, German Academic Exchange Service (DAAD)

Full scholarship (fees and maintenance grant) to fund 6-months research visit to UC Berkeley

The Frederick Alfred Warren Prize, University of Cambridge

Prize received for the highest mark overall in project work and research dissertation

DAAD Postgradual Scholarship, German Academic Exchange Service (DAAD)

Full scholarship (fees and maintenance grant) to pursue postgraduate studies at Cambridge

Ellis, Linning and Sandifer Prize, University of Birmingham

Prize awarded annually to the academically most outstanding student in the final year of the B.Eng. program in Mechanical Engineering.

Gilbert Walker Prize in Mech Eng and Commerce, University of Birmingham

Prize awarded annually to the academically most outstanding student of the double Honours course in Mechanical Engineering and Business Management

First Class Scholarship 2010-2013, University of Birmingham

Scholarship awarded for excellent academic accomplishments. Awarded for three consecutive years.