# KARSTEN SCHROER

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## EDUCATION

**University of California at Berkeley, US**                    *2022 (exp Q2)*
Visiting Ph.D. Scholar in Operations & Information Management
Advisor: Prof. Thomas Y. Lee

**University of Cologne, DE**                    *2022 (exp Q2)*
Ph.D. in Operations & Information 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: The Frederick Alfred Warren Prize (highest mark overall in research dissertation), DAAD Full Graduate Scholarship (tuition and maintenance)

**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)

## EXPERIENCE

**University of Cologne & UC Berkeley**                    Apr '18 - present
*(Visiting) PhD Researcher & Academic Faculty*                    *Cologne, DE; Berkeley, US*

· Researched data-driven decision making (econometrics/statistics, machine learning, optimization, simulation, reinforcement learning) with focus on future energy and mobility systems (EV charging, fleet management); 6-months research visit at UC Berkeley
· Published first-authored papers at leading international operations management and information systems conferences and high-impact journals
· Taught *"Data Science and Machine Learning"* (Bachelor), *"Analytics for Sustainable Society"* (Master), *"Advanced Seminar on Information Systems"* (Master/Ph.D.) and gave annual guest lecture on *"Smart Sustainable Mobility"* (MBA/EMBA); Supervised theses in data science and operations management at Bachelor's, Master's and MBA level
· Co-led DE- and EU-level grant proposals (total funds acquired: EUR 228k) and acquired two active company 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; managed teams of up to three researchers
· 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)
· Contributed to EWI's thought-leadership in the area of electric mobility by co-authoring technical reports

**Roland Berger** Feb '16 - Apr '18
*Management Consultant, Energy & Utilities Practice* *Duesseldorf, DE*

· Led own work streams in large international strategy development and restructuring assignments in Europe and the Middle East for clients in the utilities, oil&gas, chemicals and healthcare industries; extensive senior management exposure
· Managed 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** Mar '14 - May '14
*Visiting Associate (Intern)* *Berlin, DE*

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

**Innogy Consulting (formerly RWE Consulting)** Dec '13 - Feb '14
*Junior Consultant (Intern)* *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** Aug '13 - Nov '13
*Associate Consultant (Intern)* *Bonn, DE*

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

## SKILLS

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| **Programming** | Python, R, Julia, SQL, LaTeX, Git |
| **APIs & Technologies** | 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

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|---|---|
| **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) |