David Kreismann

+49 171 5112800 | davidkreismann@gmx.de | Personal Website | LinkedIn | GitHub

Education

Technical University of Munich — Munich, Germany
Master of Science in Robotics, Cognition, Intelligence — *Oct. 2025 – Sept. 2027*

Baden-Wuerttemberg Cooperative State University — Stuttgart, Germany
Bachelor of Science in Information Systems - Data Science — *Oct. 2022 – Sept. 2025*
Grade: 1.3 (German scale, 1.0–5.0; lower is better)
Thesis: Detection and Simulation of Urban Heat Islands Using a Fine-Tuned Geospatial Foundation Model (1.0)

University College Dublin — Dublin, Ireland
Visiting Undergraduate Student — *Jan. 2024 – May 2024*
GPA: 4.07 / 4.20 (First Class Honours)

Professional Secondary School Centre for Electrical Engineering — Dresden, Germany
General university entrance certificate (Abitur) combined with dual vocational education — *Aug. 2017 – July 2021*
Grade: 1.9 (German scale, 1.0–5.0; lower is better)
Advanced courses: Mathematics and Computer Science

Experience

Research Collaborator — Apr. 2026 – Present
CV4DT Lab, University of Cambridge — *Munich, Germany*
- Built a physics simulation and a reinforcement learning control baseline for a vision-based digital twin of soft robotic grippers and currently developing AutoSoftGrasp to design object-specific soft grippers using generative AI

Working Student — Oct. 2025 – Present
IBM

Managing Director's Office — *July 2026 – Present*
Mercedes-Benz & Daimler Truck Account — *Munich, Germany*
- Built an agentic workflow with IBM's agentic coding tool to support the Managing Director in mapping market trends to IBM products and business opportunities, using MCP servers, custom skills, and agent modes

Director's Office for Data & AI — *Oct. 2025 – June 2026*
Technology — *Munich, Germany*
- Developed agentic AI use cases and evaluated where IBM's Data & AI portfolio could be applied to support the Director across strategic and technical initiatives

Corporate Student — Sept. 2022 – Sept. 2025
IBM

AI Solutions Intern — *July 2025 – Sept. 2025*
Director's Office for Data & AI - Technology — *Boeblingen, Germany*
- Architected agentic AI use cases within the IBM Data & AI ecosystem and evaluated its portfolio, supporting the Director across strategic and technical initiatives

Research Intern — *Feb. 2025 – May 2025*
Zurich Research Laboratory — *Zurich, Switzerland*
- Developed a novel approach to detect and simulate urban heat islands using a fine-tuned geospatial foundation model, with results published at the NeurIPS 2025 Workshop: Tackling Climate Change with Machine Learning

Research Intern — *June 2024 – Sept. 2024*
Almaden Research Center — *San Jos, USAe, USA*
- Co-developed a workload-driven Predictive Table Optimizer for the IBM Lakehouse architecture that reduced query latency by up to 36% through automated parameter tuning, with results published at SIGMOD 2026

AI Engineer Intern — *Nov. 2023 – Jan. 2024*
Technology Infrastructure — *Lausanne, Switzerland*

- Developed an unsupervised clustering approach to detect hardware anomalies in SFP modules, to ensure early detection of critical hardware faults in telemetry data

AI Solutions Intern *June 2023 – Sept. 2023*
Industry Lab *Munich, Germany*

- Analyzed feature importance in a traffic jam forecasting model to determine the impact of specific weather and event patterns on travel delays

Software Engineer Intern *Dec. 2022 – Mar. 2023*
Client Engineering *Ehningen, Germany*

- Developed a secure Single-Page Application (React/Next.js) with integrated Single Sign-On (SSO), to simplify the authentication workflow for internal client engineering teams

Research Intern Sept. 2024 – Nov. 2024
Karlsruhe Service Research Institute at Karlsruhe Institute of Technology *Karlsruhe, Germany*

- Implemented multiple Retrieval-Augmented Generation (RAG) strategies for a domain-specific chatbot, to optimize context retrieval and response quality

Infrastructure Engineer Aug. 2018 – July 2021
move:elevator GmbH *Dresden, Germany*

- Co-responsible for the end-to-end administration and maintenance of the company's full-stack IT infrastructure

Publications and Patents

PTO: A Workload-driven Predictive Table Optimizer for Lakehouse Systems June 2026
Venkata Vamsikrishna Meduri, David Kreismann, Ronald J. Barber, Berthold Reinwald *SIGMOD*

Workload-driven Predictive Optimization of Lakehouse Table Parameters Jan. 2026
Venkata Vamsikrishna Meduri, David Kreismann, Berthold Reinwald, Ronald J. Barber *Patent*

Detection and Simulation of Urban Heat Islands Using a Fine-Tuned Geospatial Foundation Model for Microclimate Impact Prediction Dec. 2025
Jannis Fleckenstein, David Kreismann*, Tamara Rosemary Govindasamy, Thomas Brunschwiler, Etienne Vos, Mattia Rigotti* *CCAI@NeurIPS*

Detection and Simulation of Urban Heat Islands Using a Fine-Tuned Geospatial Foundation Model Sept. 2025
David Kreismann *SKILL*

Honours and Awards

GenDev IT Scholarship June 2026
Merit-based scholarship for outstanding academic achievements and technical expertise in software engineering *CHECK24*

Best Bachelor Thesis Award in Artificial Intelligence Dec. 2025
Awarded first place by the ZfKI jury for my bachelor thesis in artificial intelligence at the Faculty of Economics *ZfKI*

Scholarship by Foundation of German Business (Stiftung der Deutschen Wirtschaft) Oct. 2025
Merit-based scholarship for outstanding academic achievements and social engagement *SDW e.V.*

PROMOS Scholarship Dec. 2023
Merit-based scholarship awarded to support students during their semester abroad *DAAD*

Extracurricular Activities

MINGA Mentor Mar. 2026 – Present
TUM *Munich, Germany*

- Helping international students to settle into their new university life by assisting them with important paperwork, showing them the city, and organising group activities

Technical Skills

Programming Languages & Tools: Python, Java, SQL, TypeScript, Git, Docker, ROS2
Libraries & Frameworks: PyTorch, NumPy, Scikit-learn, ROS2, MCP, RAG

Hobbies and languages

Languages: German (C2), English (C1), Russian (B2)
Hobbies: Fitness, PADI Open Water Diver, jogging, travelling, cooking, coding