FREDERIK FRAAZ

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PROFESSIONAL EXPERIENCE

Founder & Software Engineer, KonvStack, Munich **June 2023 – Present**

- Built and launched an app for solving math problems and acquired paying users (link)
- Led the system design, development, and deployment across the entire stack
- Implemented a serverless backend with AWS (API Gateway, Lambda, DynamoDB, CloudWatch)

Co-Founder & Software Engineer, MarginMove, Remote **January 2024 – October 2024**

- Built a marketplace for spots in queues, launched within ten weeks, and acquired paying users
- Designed the system architecture including realtime updates, notifications, and payments (code)
- Implemented a scalable backend with Firebase (Functions, Firestore, Pub/Sub, Authentication)

Software Engineer, ProSiebenSat.1, Munich **January 2022 – April 2023**

- Implemented ETL steps to merge TV content data from multiple data sources into a unified dataset
- Developed RESTful APIs for ML inference and deployed to AWS via infrastructure as code
- Cut build runtime by 80% by caching Docker images in AWS ECR and parallelizing build steps
- Led a migration from AWS CodePipeline to GitLab CI/CD, reducing lines of code by 90%

Software Engineer Intern, IAV, Munich **May 2020 – July 2020**

- Trained machine learning models for detecting defects in the sensor wiring of cars

Software Engineer Intern, ANavS, Munich **October 2017 – January 2018**

- Contributed to a sensor fusion framework for high-precision positioning

Research Assistant, Technical University of Munich, Munich **April 2016 – September 2016**

- Built a system for classifying user activities with support vector machines

EDUCATION

Technical University of Munich **April 2018 – November 2021**

- MS in Electrical Engineering and Information Technology (grade: 1.2; top 10% of class)
- Thesis: Accelerated Magnetic Resonance Imaging with Flow-Based Priors (PDF, code)

University of Bologna **August 2019 – February 2020**

- Exchange semester

Technical University of Munich **October 2014 – January 2018**

- BS in Electrical Engineering and Information Technology (grade: 1.5; top 10% of class)
- Thesis: Domain of Attraction for Gaussian Processes State Space Models (PDF)

PUBLICATIONS AND PRESENTATIONS

- Frederik Fraaz and Reinhard Heckel. Accelerated Magnetic Resonance Imaging with Flow-Based Priors. ISMRM, 2022.
- Georgios Pipelidis, Frederik Fraaz and Christian Prehofer. Extracting Semantics of Indoor Places based on Context Recognition. IEEE PerCom Workshops, 2018.

TECHNICAL SKILLS

- Languages: Python (advanced), Matlab (advanced), C (proficient), TypeScript (proficient)
- Technologies: AWS, GCP, Docker, Terraform, GitLab CI/CD, SQL, PyTorch, NumPy, pandas

LANGUAGES

- German (native), English (C2; TOEFL: 117/120)