

Maximilian Fuchs MSc.

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Professional Experience

Senior Software Engineer

Software Engineer, employee at *3M Health Information Systems*

From August 2022

June 2020 - August 2022

- Developed and maintained a medical NLU platform in Java and XML
- Implemented MLOps workflows in AWS, including building, training, and deploying large models
- Translated business requirements into technical solutions in cross-functional collaborations
- Mentored junior team members and provided technical guidance to help them succeed in their roles
- Acquired and prepared large medical datasets for use in training and evaluating deep learning models (Java, Python, AWS, NLP, Computer-assisted coding, Physician documentation improvement, scrum)

Germany, Remote

Research Assistant, working student at *DE-CIX*

March 2018 – May 2020

- Implemented and tested SDN components for production in Python and C
- Wrote technical specification for federal cloud project “Gaia X” (SDN, System Engineering, Internet Infrastructure, Unix/Linux, Kibana, Elastic, Kafka)

Frankfurt, Germany

Research Assistant, working student at *UKP Lab, TU Darmstadt*

October 2017 – February 2018

- Deployed machine learning models in a production environment
- Tutored NLP programming classes for graduate students (Java, Python, Java Spring)

Darmstadt, Germany

Research Assistant, working student at *Telecooperation Lab, TU Darmstadt*

February 2015 – March 2017

- Developed a microservice based video-streaming application
- Developed and compared performance of schedulers for container orchestration using docker swarm and go
- Implemented and designed GUI elements for Microsoft Pixelsense (C#, Docker, Vagrant, Go, Docker Swarm, Bash)

Darmstadt, Germany

Software development intern, part-time at *sofasession GmbH*

February 2015 – June 2015

- Implemented signal processing components in C++
- Tested and debugged software components for a real-time audio processing system (C++, Git, JavaScript, HTML/CSS)

Vienna, Austria

Education

Master of Science - Internet- and Web-based Systems

July 2020

Technische Universität Darmstadt (Thesis: A data-driven approach for Route Selection at Internet Exchange Points)

Bachelor of Science - Network Engineering

March 2016

University of Applied Sciences Carinthia, Austria (Thesis: Comparison of Dynamic Range Compressors for Normalization of Audio Signals)

Skills

Software Engineering (*Java, C#, C++, Python, Bash, Git, SQL, Unix/Linux*) **Network Engineering** (*CCNA, Network monitoring, SDN, Network management*) **Natural Language Processing** (*NLTK, UIMA, DKPro, Information extraction*)

Data Science (*Pandas, Jupyter, data visualization, data cleaning, deep learning, RapidMiner*)

Deployment (*AWS, Docker, CI/CD, serverless, edge computing*)

Misc (*cli-apps, requirements engineering, mentoring*)

Advocate of: Functional/reactive programming, QA/test-automation, microservice architecture,
event sourcing, small + frequent releases