

Maximilian Fuchs MSc.

maxfuchs.net • maxfuchs@pm.me

Professional Experience

Senior Software Engineer

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

From August 2022

June 2020 - August 2022

Germany, Remote

- Led a pilot project evaluating LLMs for medical information extraction. Including Prompt Engineering, LangChain Development, Finetuning
- Developed and maintained medical natural language understanding components in Java and Python
- Implemented MLOps workflows in AWS, including building, training, and deploying large models
- Acquired and prepared large medical datasets for use in training and evaluating deep learning models (Java, Python, AWS, NLP, Data Science, Privacy Compliance, Physician Documentation Improvement)

Research Assistant, working student at *DE-CIX*

March 2018 – May 2020

- Implemented and tested SDN components for production in Python and C Frankfurt, Germany
- Utilized big data techniques to capture and analyze network traffic at the world's largest internet exchange point (SDN, System Engineering, Internet Infrastructure, Unix/Linux, Big Data, Pandas, Elastic, Kafka)

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

October 2017 – February 2018

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

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

February 2015 – March 2017

- Developed a microservice based video-streaming application Darmstadt, Germany
- Developed and compared performance of schedulers for container orchestration using docker swarm and go (C#, Docker, Vagrant, Go, Docker Swarm, Bash)

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

February 2015 – June 2015

- Implemented signal processing components in C++ Vienna, Austria (C++, Git, JavaScript, HTML/CSS)

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 (Thesis: Comparison of Dynamic Range Compressors for Normalization of Audio Signals)

Skills

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, chat-bots, requirements engineering, web-scraping)