

# 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

- Led a pilot project evaluating large language models (LLMs) for medical information extraction. Including Prompt Engineering, LangChain Development, Finetuning LLMs, and Evaluating and Debugging AI Models) Germany, Remote
- 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, Kibana, 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)

### 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
- Tested and debugged software components for a real-time audio processing system (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, mentoring, web-scraping*)