Maximilian Fuchs MSc.

maxfuchs.net • maxfuchs@pm.me

Professional Experience

Senior Software Engineer *From August 2022*
Software Engineer, *employee at 3M Health Information Systems* *June 2020 - August 2022*

- Led a pilot project evaluating LLMs for medical information extraction. Germany, Remote
  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, mentoring, web-scraping*)