PETER WEINBERGER

M.Sc. Data Engineering and Analytics at Technical University of Munich

📍 Munich, Germany   🌐 weinberger.cloud   ⬚ brewormly   in peter-weinberger

EDUCATION

Medical Image Segmentation Using Self-Supervised Learning and Vision Transformers 📄
Master's Thesis

📅 April 2022 – Dec 2022   📍 Technical University of Munich

- Created a novel Deep Learning architecture using self-attention values extracted from Vision Transformers
- Outperforming SOTA attention-based Computer Vision models on two medical datasets
- Supervision by Prof. Dr. Nassir Navab at the Chair for Computer Aided Medical Procedures (Johns Hopkins University and Technical University of Munich)
- Results will be published at CVPR 2023 (currently under review)

Data Engineering and Analytics
Master of Science

📅 2020 – 2022   📍 Technical University of Munich

Improving Real Estate Valuation using Side Information and Advanced Machine Learning Techniques
Bachelor's Thesis

📅 Oct 2019 — March 2020   📍 Immowelt AG

- Aggregated location specific information
- Analyzed $\sim 300k$ real estate ads containing $200+$ features each
- Combined recent Gradient Tree Boosting algorithms in order to predict real estate prices

Computer Science
Bachelor of Science

📅 2016 – 2020   📍 Nuremberg Tech

PUBLICATION

Towards Bilingual Word Embedding Models for Engineering. Proceedings of the 4th International Conference on Management Science and Industrial Engineering. 2022. 📄

FELLOWSHIP

Deutschlandstipendium (German National Scholarship)
Bundesministerium für Bildung und Forschung

📅 Oct 2018 – Sept 2019

PROJECT EXPERIENCE

Deep Learning in Natural Language Processing for Analysis of Document Similarity 📄
in cooperation with Horváth & Partners GmbH

📅 April 2021 – July 2021   📍 Munich

- Developed a semantic search engine using transformer-based Deep Learning models in combination with cutting-edge topic models
- Used the LRZ AI infrastructure and Elasticsearch to build a scalable prototype, searching $\sim 2m$ documents

Creating a GraphQL Parser for IoT Devices in C++ ⬚
in cooperation with Siemens AG

📅 October 2018 – July 2019   📍 Fürth

- Developed a GraphQL Parser for SIEMENS IoT Devices in C++
- Integrated the C++ code in an show-case application using NGINX and GraphiQL

WORK EXPERIENCE

Business Intelligence Engineer – Intern
Amazon

📅 Oct 2022 – present   📍 Luxembourg

- Working in the core transportation team, I discover patterns in Amazons enormous data streams to keep the high level of quality in the delivery supply chain up
- Leveraging Machine Learning to optimise and refine supply chain operations

Teaching Assistant
Technical University of Munich

📅 Oct 2021 – March 2022   📍 Munich

- Taught tutorials in Foundations in Data Engineering (~ 200 students)
- Skills include e.g. advanced SQL, distributed computing, MapReduce, Apache Spark, and C++ performance optimization

Data Engineer – Working Student
Immowelt AG

📅 Sept 2019 – Oct 2019   📍 Nuremberg

- Analyzed, acquired, and extracted data from column-based databases
- Prototyping of Machine Learning Pipelines

Data Scientist NLP – Intern
DATEV eG

📅 Oct 2018 – Feb 2019   📍 Nuremberg

- Conducted analysis of unstructured text data and implemented NLP prototypes in Python
- Supported projects with technical expertise

C# Software Engineer – Working Student
Siemens AG

📅 Feb 2017 – Sept 2018   📍 Fürth

- Wrote tools to conduct automated tests for $100+$ TIA portal HMI systems
- Migrated test servers and CI/CD pipeline from TeamCity to Jenkins

Junior Java EE Developer
NÜRNBERGER Versicherungsgruppe AG

📅 July 2015 – August 2015   📍 Nuremberg

- Developed sales software for the non-life insurance sector

Apprenticeship as Computer Science Expert
NÜRNBERGER Versicherungsgruppe AG

📅 2012 – 2015   📍 Nuremberg

- Specialized in Java EE software development

SKILL SET

Python   SQL   C++   Java EE   C#

PyTorch   NumPy   Git   Unix   Pandas

Gensim   NLTK   scikit-learn   R   LaTeX

LANGUAGES

German
English

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