Tarek Akrout

EDUCATION

Technical University of Munich, M. Sc in Computer Science

Technical University of Berlin, B. Sc in Computer Science

Bachelor thesis on Quantization-aware training for neural network (1,0)

Oct 2024

Munich, Germany

Oct 2021 – Sept 2024

Berlin, Germany

Experience

TU Berlin Apr 2024 - Oct 2024

Tutor and student assistant

Berlin, Germany

- Guided students in solving assignments for the "Algorithms and Data Structures" course.
- Developed an automated exam generation and grading pipeline in Python for the "Python for Machine Learning" course.
- Assisted in organizing, and grading exams.

Siemens Mobility

Jul 2022 – Oct 2023

Working student: Web developer

Berlin, Germany

- Used web APIs to integrate data from different systems into our databases.
- Assisted in the design and architecture of databases.
- Created multiple KPI dashboards and produced user-friendly frontend views, including map displays and Gantt charts, to enhance data comprehension.

1&1 Telecommunication SE

Jan 2022 – Jun 2022

Working student : Software developer

Berlin, Germany

- Wrote YAML files and SQL queries in order to improve system monitoring and performance evaluation.
- Prepared Grafana dashboards for better data visualization.

PROJECTS (GITHUB)

ML: Quantization-aware training for VAEs and diffusion models, Neural Style Transfer, basic entity resolution pipeline.

Web development: Implementation of a Kanban board.

Computer Graphics: Shading and Texture mapping using glsl.

TECHNICAL SKILLS

Languages: Python, Java, C, C++, SQL, TypeScript, Haskell, Prolog.

Technologies: PyTorch, Numpy, Matplotlib, Git, Spark, Linux and basics of: Pandas, Vue.js, Express.js and Docker.

Online Courses

Convolutional Neural Networks | Jun 2021

Structuring Machine Learning Projects | May 2021

Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization | $May\ 2021$ Neural Networks and Deep Learning | $Apr\ 2021$

LAGUAGES

Arabic, French, English (C1), German (C1)