Tarek Akrout

Email LinkedIn Repository Page

Education

Technical University of Munich, M. Sc in Computer Science Oct 2024
Munich, Germany

Technical University of Berlin, B. Sc in Computer Science Oct 2021 – Sept 2024
Bachelor thesis on Quantization-aware training for neural network (1,0) *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.

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*

Projects

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 **and basics of** : Pandas, Vue.js, Express.js and Docker.

Laguages

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