

Mohammad Afaneh m\_afaneh@web.de 0049 176-82259918

> Address Nikolaistr 20 Göttingen 37073 Germany

> > Nationality German Jordan

# Mohammad Afaneh

## Software Engineer, M.Sc Applied CS

**About Me** Dynamic and results-driven professional with a Master's degree in Applied Computer Science and four years of hands-on experience in the Artificial Intelligence field. Adept at merging the realms of artificial intelligence development, I bring a robust skill set encompassing diverse programming languages. My passion lies in leveraging cutting-edge technologies to create intelligent solutions that not only meet but exceed the expectations of clients and end-users.

## Education

### 2016 - 2020, Georg August University - Germany

Master's Degree in Applied Computer Science (Application-Oriented Systems Development)

#### 2015 - 2016, University of Wuppertal - Germany

Computer Simulation In Science

#### 2008 - 2013, Birzeit University - Palestine

Bachelor degree in Computer Systems Engineering

## Experience

#### Jan 2021 - present, AI and Business Developer

HOMIRO Metrology, Göttingen, Germany

- Clean and preprocess data, including image preparation for model training with Python, Opency, scikit-image, Numpy, Pillow.
- Optimize AI models to achieve the best possible performance with Pytorch.
- Analyze training outcomes and create visualizations to assess performance with Matplotlib, Seaborn, Pandas.
- Implement and deploy runtime inference engine with TensorRT,ONNX.
- Design and manage databases for storing and retrieving image datasets with PostgreSQL.
- Design and implement tools for results visualization with Javascript, Svelte, CSS, Flask, Fast API.
- Projects:
  - Development of measurement system for defect detection for automobile industry.
  - Development of various AI solutions, including object detection, segmentation, classification, feature extraction and tracking.

## May 2020 - Jan 2021, Freelance Software Engineer

- Development of REST-API and web applications.
- Frontend Development with Typescript, , HTML, CSS, Bootrap, Angular 8.
- Backend Development with JAVA, Springboot, Maven, Hibernate.
- Database Development with SQL
- Projects:
  - Development of internal tools for a solar energy solutions company
  - Implementation of internal tools leveraging the Appway platform in the banking sector.



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## Certifications

• AI Infrastructure and Operations - NVIDIA-Certified Associate. NVIDIA, Dec 2024 - Dec 2026

### Additional Skills

- Working with libraries and frameworks like Hugging Face, LangChain.
- Implementing LLMs for NLP tasks such as text classification, summarization, translation.
- Fine-tuning and training LLMs for domain-specific applications.
- Designing and implementing prompt engineering strategies for LLMs.
- Developing APIs leveraging LLM capabilities like chatbots.

## Research Projects

#### Camera-Based Autonomous Driving of a Drone

Development of different algorithms for autonomous flight control

#### Transfer Learning For Defect Detection On Road Surfaces

Development of a machine learning project to detect road damage. Encoder, Decoder model with different trained models.

### Monitoring Traffic Congestion On Roads

Monitoring traffic jams with intelligent sensor network.

## Professional Skills

#### **Programming Languages**

- $\circ \ \ Python \qquad \quad \circ \ \ Java \qquad \quad \circ \ \ C++$
- o XML o Javascript/Typescript

#### Tools and Web Technologies

- DockerGit

#### Libraries and Tools

Pytorch
NumPy
Pillow
Pandas
OpenCV
matplotlib
scikit-learn
Pandas
Seaborn

#### Platforms

WindowsUnix/Linux

## Languages

#### Arabic

Mother tounge

#### **English**

C1 Level

#### German

C1 Level