



Loay Berzan

AI Engineer

Education

03/2025 - Current

Technische Hochschule Deggendorf

Master of Science in Applied Computer Science

Focus: FPGA Programming, Machine Learning, AI & Data Science

10/2018 - 01/2023

Xiamen University (Malaysia Campus)

Bachelor of (B.Eng.) Electrical and Electronics Engineering

Focus: MCU Technology & Engineering, Data Communication Networks, Programming Language C

Practical Experience

10/2025 - Current

First Semester Student Mentor | Technische Hochschule Deggendorf | Deggendorf, Germany

- Guide and support first-year students in academic and campus integration.
- Act as a key contact for advice, orientation, and problem-solving.

09/2025 - Current

Kitchen Assistant (MiniJob) | BaseCoffee | Regensburg, Germany

- Assisting in meal preparation.
- Maintained cleanliness of the kitchen and equipment.
- Organized food storage and ensured items were properly labeled.

10/2023 - 12/2024

Software Developer (Freelancing) | Hijau Tech SDN BHD | Cyberjaya, Malaysia

- Developed AI-driven analytics dashboards to improve customer engagement insights.
- Built a microservices architecture with Docker and Kubernetes to enhance scalability and reduce downtime.
- Used Git for collaborative development and streamlined version control.
- Implemented serverless workflows with AWS Lambda and API Gateway to optimize infrastructure and improve application performance.

Contact

Phone: +4915210351632

E-mail: loay.berzan@gmail.com

Address: Deggendorf, Bayern

Birthday: 05.12.2000

LinkedIn: www.linkedin.com/in/loay-berzan/

GitHub: github.com/loayasser

Portfolio: loayberzan.vercel.app/

Skills

- Python
- PyTorch
- TensorFlow
- Scikit-learn
- JavaScript
- Pandas
- NumPy
- SQL
- Docker
- REST APIs
- Data Visualization
- MATLAB
- HTML/CSS
- React
- Git
- RAG Pipelines
- Linux

Languages

- English - Fluent
- German - A2
- Arabic - Native



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Projects

German Traffic Sign AI Recognition

- Architected a Deep Learning model using TensorFlow and Keras, designing a custom CNN (Convolutional Neural Network) to classify 43 distinct traffic sign classes.
- Deployed the trained model as an interactive web application using Streamlit, enabling real-time inference and user testing in a production environment.
- **Live Demo:** <https://traffic-sign-recognizergit-hzyappvcpygdvkykdmgeyp.streamlit.app/>
- **GitHub Repo:** <https://github.com/loayasser/Traffic-Sign-Recognizer>

TPM 2.0 integration with Raspberry Pi via SPI

- Hardware connection, system configuration, setup of TPM software environment and validation of cryptographic operations

FPGA-Project

- RTL coding, testbench creation with ModelSim, synthesis and implementation on Xilinx hardware (Vivado)

IoT-Weather-Station (ESP32)

- Sensor data acquisition with DHT11 and BMP180, connection to the cloud (ThingSpeak) via MQTT, local display via LCD, development of real-time IoT functions

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Signature



Place, Date

Deggendorf, 24.12.2025