Izzat Al Brgli

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Experience

EDAG Engineering GmbH
Wolfsburg, Germany

Software Engineer
November 2021- Present

- As a member of the vehicle state estimation team in an agile project, I research and develop algorithms for estimating desired vehicle states (longitudinal and transverse) for self-driving vehicles.
- Developing the required software test plans.
- Performing failure mode and effect analysis(FMEA).
- Transferred the architecture design into Enterprise Architect and drew the map of dependencies between the architecture and the requirements.
- Meeting, discussing and presenting the results to our clients
- **Technologies**: Simulink, Matlab, CI/CD, SystemWeaver, Enterprise Architect, EB corbos Studio, Adaptive AUTOSAR, xFMEA, GitLab, Jira, Confluence, SVN, Jenkins

Technische Universität Braunschweig
Braunschweig, Germany

Werkstudent
Juni 2020 - Dezember 2020

- Developed a graphical user interface for controlling a measurement system.
- Built a motor control system.
- Created a graphical user interface for an internal database system.
- **Technologies**: Python, PyQt5, NANOJ, Raspberry pi, Git, UML

FlexNavi
Braunschweig, Germany

Werkstudent
Oktober 2019 - Dezember 2019

- Assisted with the fabrication of electrical circuits and the hardware assembly process for new technology.
- Tested new products.
- **Technologies**: Arduino, KiCad

Education

Technische Universität Braunschweig
Braunschweig, Germany

Master of Science in Mechanical Engineering focusing on Mechatronics, Automation and AI
Apr 2018 - Jun 2021

Damascus University
Damascus, Syria

B.Sc in Mechanical Engineering
Sep. 2009 - Dec 2015

Academic Projects

Master's thesis I implemented multiple algorithms from reinforcement learning using Python to control the automated cooperative intersection crossing of connected vehicles.
Technologies: Python, Pytorch, SUMO, Reinforcement Learning, UML, Matlab.

Studienarbeit This research focused on the investigation of the suitability of Convolutional Neural Networks (CNN) for forecasting sensor readings (Harvest volume in the harvesting machine warehouse).
Technologies: Python, Tensorflow, Keras, Deep Learning, CNN, Scikit-learn.

Programming "Zumo" robot by using Arduino and Simulink to track the directed light (final project for Multidisziplinäre Simulationen in der Adaptronik mit MATLAB/Simulink).
Technologies: Arduino, Simulink, Stateflow, 3D Printing, Ultrasonic sensors

Skills

Programming	Python, MATLAB, Simulink, C++
Artificial Intelligence	Reinforcement learning, Deep Learning, PyTorch,TensorFlow
Database	SQL
Other technologies	Git, AWS, PyQt5, REST-API, OpenCV, Raspberry pi, Arduino, Jira, Jenkins
Soft Skills	Working in teams, Working solo, Agile
Languages	Arabic (Native), English (Professional), Deutsch (Professional)
DRIVING LICENCE:	**B**

MOOC

AWS Cloud Technical Essentials — *Amazon*

Offered through Coursera — *Issued Aug 2021*

Databases and SQL for Data Science with Python — *IBM*

Offered through Coursera — *Issued Apr 2021*