

# Oguz Altan

✉ oguzaltan148@gmail.com

☎ +4915204495391

Roermonder Str. 73 52072, Aachen

🌐 linkedin.com/in/oguzaltan

🐙 github.com/oguzaltan

Date of birth: 12.07.1997



## SUMMARY

AI/ML Engineer with a Master's Degree from RWTH Aachen University, specializing in data science, deep learning (DL), reinforcement learning (RL), and robotics. Experience in computer vision, image processing, NLP, control theory, and statistical data analysis. Proficient in Python, MATLAB, and a range of AI/ML frameworks and libraries.

## SKILLS

<b>Programming:</b>	Python, MATLAB & Simulink, SQL, Java, L <sup>A</sup> T <sub>E</sub> X, Assembly, VHDL
<b>Libraries:</b>	Numpy, Pandas, PyTorch, TensorFlow, Gym, Ray, SciPy, Scikit-Learn, Pillow
<b>Tools &amp; Software:</b>	Linux, ROS, Git, Docker, VS Code, EAGLE, MS Office
<b>Languages:</b>	English (Fluent), French (Fluent), German (Beginner), Turkish (Native)

## EDUCATION

### RWTH Aachen University

Aachen, Germany

*M.Sc. in Electrical Engineering and Information Technology (GPA: 2.2/1.0)*

*Nov 2020 – Sept 2023*

- *Major:* Systems and Automation
- *DAAD Scholarship for Completing Studies:* Awarded stipend during final year (2022)
- *Relevant Courses:* Artificial Intelligence, Deep Learning, Robotics and Man-Machine Interaction I & II, Reinforcement Learning and Learning-Based Control, Current Concepts and Trends in the Fields of Robotics and Simulation, Simulation of Robotic Systems - Sensors - Environment - Processes, Digital Image Processing

### Bilkent University

Ankara, Turkey

*B.Sc. in Electrical and Electronics Engineering (GPA: 3.35/4.00  $\approx$  1.9/1.0)*

*Sept 2016 – Jun 2020*

- *Scholarship of the Turkish Prime Ministry:* Awarded stipend (2016 - 2020)
- *Relevant Courses:* Neural Networks, Data Science, Optimization in Engineering, Control Theory, Nonlinear Systems

## SELECT WORK EXPERIENCE

### Fraunhofer FKIE

Wachtberg, Germany

*Master's Thesis Student, Grade: 1.3/1.0*

*Feb 2023 – Sept 2023*

- *Title:* Tracking and Evasion using Co-Training with Context Knowledge
- Optimized UAV trajectory for precise target tracking in urban environments using CNN-integrated deep RL.
- Created diverse artificial urban maps with procedural generation, improving RL system robustness.
- Improved agent awareness and tracking using game-theoretic co-training and map image feature extraction.

### Siemens

Munich, Germany

*Machine Learning Engineering Intern and Working Student*

*Mar 2022 – Dec 2022*

- Researched and developed anomaly detection methods for the AI-integrated Wire Arc Additive Manufacturing (WAAMAI) process, using and testing multiple ML and DL algorithms.
- Found that CNN-based autoencoders are the most effective for anomaly detection, based on F1 and PR AUC scores.
- Analyzed data, monitored processes, and developed automation software using NVIDIA Jetson for edge computing.

## SELECT RESEARCH & PROJECTS

### Mobile Robotics in Disaster Scenarios

*Seminar Paper, Institute of Man-Machine Interaction at RWTH Aachen University, 2021*

- Authored a review article for the seminar course *Current Concepts and Trends in Robotics and Simulation Science*.

### Accompanying Humans and Achieving Designated Tasks with Autonomous Mobile Robots

*Bachelor's Final Project, Bilkent University, 2020*

- Developed an autonomous land robot using YOLO and LIDAR for human tracking and obstacle evasion, and integrated with ROS for Gazebo simulation.

Aachen, 15.07.2024