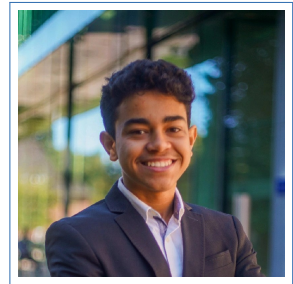# Mourad Ouazghire

M.Sc. Artificial Intelligence & Machine Learning Studen @ TU Darmstadt

Darmstadt, Hessen
Germany
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Education

Oct 2024 – Present
M.Sc. Artificial Intelligence & Machine Learning, *Technische Universität Darmstadt*, Darmstadt, Hessen, Germany

Coursed undertaken: Natural Language Processing and the Web, Deep Learning for NLP, Multimodal Artificial Intelligence, Statistical Machine Learning, Introduction to Artificial Intelligence, Deep Learning for Medical Imaging, Deep Generative Models, Deep Learning: Architectures & Methods.

Sep 2021 – Jun 2024
B.Sc. Robotics and Intelligent Systems (Honours), *Constructor University Bremen*, Bremen, Germany

Bachelor's Thesis: *Object Detection from Real Life Road Traffic Images combined with Explainable Deep Learning Approaches, GPA: Very Good*

Experience

Research

Jun 2024 – Sep 2024
Research Intern, *Australian Centre for Robotics*, Sydney, Australia
○ Co-authored a paper accepted at the Australasian Conference on Robotics and Automation 2024: *"Performance Assessment of Lidar Odometry Frameworks: A Case Study with Loop Closure at Australian Botanic Garden Mount Annan"*.

Jun 2023 – Aug 2023
Research Intern, *Ingeniarius Ltd.*, Porto, Portugal
○ Implemented a LIO–SAM SLAM pipeline transforming LiDAR point clouds into octrees to rapidly identify novel environmental information, reducing processing time of large maps.
○ Mentored engineering students during the RobotCraft 2023 Summer Program on autonomous vehicle simulation and LiDAR data processing.

Jun 2022 – Aug 2022
Research Intern, *DFKI – German Research Center for Artificial Intelligence*, Bremen, Germany
○ Contributed to the EU–funded APRIL project by developing MuJoCo simulation models of the anthropomorphic MIA Hand end–effector.
○ Measured contact forces between robotic fingers and grasped objects using Python–based experiments; participated in bi–weekly progress reviews.

Teaching and full-time work

Sep 2023 – Jun 2024
Teaching Assistant – Computer Vision & Major Representative, *Constructor University*, Bremen, Germany
○ Delivered weekly tutorials and graded programming assignments for 97 students covering filtering, feature detection, segmentation, motion tracking and vision automation in Python.
○ Represented the Robotics and Intelligent Systems major at campus and national outreach events.

Volunteering

May 2022 – **Co–main Organizer**, *jacobsHack!22*, Bremen, Germany
Nov 2022 Hosted one of the largest hackathons in Central Europe; coordinated five departments (Logistics, IT, Sponsorship & Finance, Recruitment, Design & Promotion), managed sponsor relations and ensured seamless on–site operations.

Winter & Summer Schools

Sep 2023 **Inria–DFKI Joint Summer School**, *Côte d'Azur*, France
Jul 2024 **Australian School of Robotic Systems**, *Sydney*, Australia

Honours & Awards

- DAAD RISE Worldwide Scholar 2024
- DAAD RISE Worldwide Scholar 2023

Languages

English Fluent
German B2
French Fluent
Arabic Fluent

Technical Skills

Programming	Python, C/C++, MATLAB	Frameworks	PyTorch, TensorFlow, ROS
Tools	Git, Linux, LaTeX	Data	OpenCV, PCL, pandas
Robotics	MuJoCo, Gazebo		