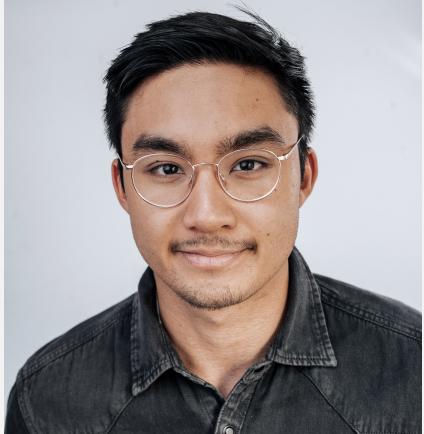


## Short Profile

Robotics & AI Master's student at the Technical University of Munich (TUM) with practical experience from BMW and Siemens. Skilled in C++, Python, and PyTorch for developing AI-driven robotics and machine learning applications. I have an international background: of Asian heritage, born in Norway, and raised in Germany. Outside of work, I enjoy practicing calisthenics and jogging, reading philosophy, and writing poetry.



## Leonardo Maglanoc

### Robotics & AI Researcher



Munich, Germany  
leonardo-maglanoc.com  
leo.maglanoc@tum.de  
LeoMaglanoc  
leonardo-maglanoc

### Research Interests

- Humanoids, manipulators, drones
- 3D computer vision and SLAM
- Safety in robotics with formal verification
- Computational neuroscience
- Robotics foundation models

### Programming

Python (PyTorch, ROS2)

Linux (Git, Docker)

C++

Java

### Languages

German (mother tongue)

Norwegian (mother tongue)

English (C2)

French (B1)

## Work Experiences

Sep 2025 - Present	- Master Thesis Student	Foundation Robotics, Munich, Germany, full-time
	Master's thesis in collaboration with <a href="#">humanoid robotics startup</a> on language-guided multifingered manipulation with foundation models.	
Feb 2025 - Aug 2025	- AI/ML Research Intern	BMW Group Research, Munich, Germany, full-time
	Development of neuro-inspired computing architecture called <a href="#">Oscillatory Neural Networks (ONNs)</a> in collaboration with IBM. Executed a user study with a tactile hardware prototype and collected dataset from 10 participants. Designed Python/PyTorch-based ONN-simulators and applied them to collected dataset as an ONN-based Human-Vehicle Interaction AI demonstrator.	
Apr 2023 - May 2024	- Robotics Research Assistant	Technical University Munich, Germany, part-time
	Making physical human-robot interaction (pHRI) provably safe with formal verification for the TUM CPS group. Implementation of kinematics and trajectory planning algorithms. Contributions to <a href="#">research paper</a> conditionally accepted for top robotics journal (IEEE T-RO).	
Nov 2020 - Apr 2021	- CS Teaching Assistant	Technical University Munich, Germany, part-time
	Teaching responsibilities for introduction to informatics. Basics of object-oriented programming with Java and general problem-solving in computer science. Correcting weekly coding homework and exams.	

## Education

Apr 2023 - Present	- M.Sc. Robotics, Cognition, Intelligence	Technical University Munich, Germany
	Interdisciplinary Master of Science program of the Departments of Informatics, Electrical Engineering, and Mechanical Engineering. Specialization in robotics, computer vision, and machine learning.	
Feb 2024 - Aug 2024	- Siemens Mentoring Programme	Siemens, Munich, Germany
	Career-building by Siemens senior-executives for ambitious students. Presented the hackathon project Smart 3D Printing with Machine Learning at Siemens RIE Munich Conference and almost got 1st place.	
Sep 2019 - Mar 2023	- B.Sc. Informatics	Technical University Munich, Germany
	Bachelor of Science in computer science with a minor in mathematics. Specialization in mathematical modeling, cyber-physical systems, and artificial intelligence. Bachelor Thesis at Chair for Robotics: <i>Provably Safe Human-Robot Interaction for Manipulation using Power and Force Limiting</i> (Grade: 1.3).	

## Projects

Dec 2025	- RoboTUM Hackathon	RoboTUM and Motius, Munich, Germany
	48-hour RoboTUM hackathon at Motius facilities with SO-101 robot. Full robot learning pipeline with data teleoperation collection, fine-tuning on diffusion- and VLA-models, and inference for pick and place task.	
Oct 2023 - Feb 2024	- Autonomous Drone Practical	Technical University Munich, Germany
	Set goal position with haptic controller, and the vision-based drone autonomously reaches the goal while avoiding obstacles. (Grade: 1.0).	