



# ANDREA GRAVILI

## COMPUTER SCIENTIST

### ABOUT ME

I've loved playing around with computers since I was little. I think mixing this passion with my creativity has helped me grow a lot. I love exploring new things, listening to music, and socialising with new people!

### EDUCATION

#### SAPIENZA, UNIVERSITY OF ROME

09/2024 - current

**Master's degree in AI and Robotics**

#### UNIVERSITY OF TRENTO

09/2021 - 07/2024

**Bachelor's degree in Computer Science**

#### ITIS G.PERLASCA

09/2016 - 06/2021

**High School degree in Computer Science**

### WORK EXPERIENCE

#### ROBOTICS SOFTWARE ENGINEER | 10/2024 - CURRENT Sapienza - SASA

Skills: ROS2, C++, Python, Electronic. Developing the navigation stack for a rover. Working directly on the firmware and also on the autonomous planning and search.

#### ROBOTICS SOFTWARE ENGINEER | 08/2024 - 10/2024 University of Trento

Skills: ROS, C++, Python, JavaScript. Made a software with an easy to use GUI for interacting and make move an humanoid robot, tested on Wired Next Fest of Rovereto 2024.

#### ROBOTICS SW. ENGINEER INTERN | 02/2024 - 06/2024 University of Trento

Skills: ROS, C++, Python, software for the interaction with an humanoid robot, path planning, problem solving

#### Goals achieved:

- Robot interaction with people at the Trento Museum of Sciences
- Tested software in 2 big scenarios (University and MUSE)

#### TEACHING ASSISTANT | 09/2023 - 02/2024 University of Trento

*University tutor for the course: software engineering*

Skills: JS (node.js), react.js, HTML + CSS, building of a software architecture, Mongo DB, agile, leadership, communication, creativity

#### Goals achieved:

- Helped multiple students with their projects with positive feedback
- Better communication and teaching skills

### CONTACTS



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github.com/TitanWasHere

### AREAS OF EXPERTISE

- Software engineering
- Robotics software dev
- Artificial Intelligence
- UI designer

### LINGUISTIC SKILLS

- Italian (mother tongue)
- English C1

## DIGITAL SKILLS

### PROGRAMMING LANGUAGES AND FRAMEWORKS

- |          |            |               |            |
|----------|------------|---------------|------------|
| • C/C++  | ▬▬▬▬▬▬▬▬▬▬ | • Simulink    | ▬▬▬▬▬▬▬▬▬▬ |
| • Python | ▬▬▬▬▬▬▬▬▬▬ | • Tensorflow  | ▬▬▬▬▬▬▬▬▬▬ |
| • MATLAB | ▬▬▬▬▬▬▬▬▬▬ | • Node.js     | ▬▬▬▬▬▬▬▬▬▬ |
| • ROS    | ▬▬▬▬▬▬▬▬▬▬ | • MongoDB     | ▬▬▬▬▬▬▬▬▬▬ |
| • Java   | ▬▬▬▬▬▬▬▬▬▬ | • Vision (CV) | ▬▬▬▬▬▬▬▬▬▬ |

### OTHER PLATFORMS

- |          |            |          |            |
|----------|------------|----------|------------|
| • Docker | ▬▬▬▬▬▬▬▬▬▬ | • Gazebo | ▬▬▬▬▬▬▬▬▬▬ |
| • Git    | ▬▬▬▬▬▬▬▬▬▬ | • Unix   | ▬▬▬▬▬▬▬▬▬▬ |
| • Unity  | ▬▬▬▬▬▬▬▬▬▬ | • Office | ▬▬▬▬▬▬▬▬▬▬ |

## PROJECTS

### DA VINCI UNITY SIMULATOR

09/2025 - 11/2025

For the university course "Medical Robotics", me and my team, have implemented the Da Vinci Surgical system into the simulation engine "Unity", we implemented the kinematics structure and also a simulation.

**Github:** [https://github.com/TitanWasHere/DaVinci\\_Unity](https://github.com/TitanWasHere/DaVinci_Unity)

### ROBOT CONTROL COMPARISON

07/2025 - 11/2025

For the university course "Robotics 2", me and my team have studied two controllers: FBL and PBC. Then we determined their performance on a Franka Emika Panda robot manipulator, the dynamic model of which has 20% uncertainty on some (or all) parameters. I made the comparison on different and profile trajectories.

**Github:** [https://github.com/TitanWasHere/Franka\\_control\\_comparison](https://github.com/TitanWasHere/Franka_control_comparison)

### ARI THESIS

02/2024 - 07/2024

Project for the University of Trento, which deals with a humanoid robot named ARI. My responsibility in this project is to manage the speech and listening node, as well as the calibration and path planning.

**Github:** [github.com/TitanWasHere/ARI-thesis](https://github.com/TitanWasHere/ARI-thesis)

## HONOURS AND AWARDS

### WINNER OF THE 2024 VENETOSTARS EDITION

22/05/2024

Won the 2024 VenetoStars project for developing a solution using space data to protect the UNESCO site of the Prosecco Hills. The project, named Safe-Hills, was presented at the Space Meeting 2024 in Venice.

**Website:** <https://venetostars.com/#winnerd>

### EUROPEN ROVER CHALLENGE

08/2025

Participated with my team at the European Rover Challenge in Krakow. We arrived #1 in the remote challenge and #16 in the on-site challenge.