



# Gabriele Sisinna

Robotics Engineer

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Robotics engineer with a strong inclination towards innovation and prototyping. Passionate about software development for robot control and mechatronics. Looking for innovative projects and opportunities around the world.

## WORK EXPERIENCE

### Robotics Engineer

Italian Institute of Technology (IIT)

10/2021 - Present

Genova

#### Achievements/Tasks

- Humanoid robots assembly and prototyping
- Software development for robot control
- Team-working with Agile methodologies
- Mechatronics troubleshooting and system upgrades
- Maintenance and after-sales support
- Docker-based application deployment

### Research Student (MSc)

Scuola Superiore Sant'Anna (SSSA)

03/2021 - 10/2021

Pisa

#### Achievements/Tasks

- Design and implementation of a bio-inspired control system for social humanoid robots (Abel)
- Python, ROS, YARP, MoveIt, Robot Control
- Mechatronics setup and troubleshooting
- Trajectory planning based on minimum jerk algorithms

### Lab training: Control of a redundant (7DOF) simulated robotic arm (KUKA)

Scuola Superiore Sant'Anna (SSSA)

11/2020 - 02/2021

Pisa

#### Skills

- Definition of manipulator kinematics and virtual model
- Closed Loop Inverse Kinematics (CLIK) algorithms
- Trajectory planning, simulation and execution
- Python programming and ROS interface development

## EDUCATION

### MSc Biorobotics

Scuola Superiore Sant'Anna (SSSA)

10/2018 - 10/2021

Pisa

#### Courses

- Robotics / HRI / Social Robotics
- Bionic Prosthesis / Robotic Exoskeletons
- Soft Robotics / Smart Actuators
- Machine Learning / Data Mining
- Neuroscience / Computational Neuroscience

## SKILLS

- Robotics
- Humanoid Robotics
- Prototyping
- Python
- ROS
- YARP
- Matlab
- Simulink
- 3D Printing
- Linux
- Git
- Mechatronics
- Neural networks
- Neuroscience
- Resilience
- Agile methodologies
- Project Management
- Team working
- Troubleshooting
- Flexibility and adaptability
- Deadline management

## PROJECTS

### iCubTest Application (05/2022 - 08/2022)

- Development of an application to automate and simplify test execution for iCub encoders
- Deployment and automation using docker-compose and docker swarm
- Writing code in C++ for extension and optimization of tests package

### Design and implementation of a bio-inspired control system for social humanoid robots (03/2021 - 10/2021)

- Development of control software for bio-inspired humanoid robot with the goal of creating a stable and usable platform in the field of HRI
- Python and ROS software development
- Implementation of human-like movements for compliant interaction

### High-level controller development for IH2 Azzurra (SSSA) robotic hand (12/2019 - 05/2020)

- Embedded microcontroller (PIC) programming for grasping pose management
- Writing of technical documentation for user use

## LANGUAGES

English  
Full Professional Proficiency

Italian  
Native or Bilingual Proficiency

## INTERESTS

- Entrepreneurship
- AI
- Open Source Platforms
- Linux
- Marketing
- Design
- Finance