

ANDREA PITTO

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EDUCATION

Master's Degree in Robotics Engineering March 2022

Earned at the University of Genoa, Italy — 107/110

Thesis: *Safe Learning for Robotics: Abstraction Techniques for Efficient Verification*

Bachelor's Degree in Electronic Engineering and Information Technology March 2019

Earned at the University of Genoa, Italy — 95/110

Thesis: *Classification of Soil Coverage via Remote Sensed Optical and Radar Multi-sensor Images*

SKILLS

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|---------------------|---|
| Languages | Python, C, MATLAB, \LaTeX , C++, C#, Java, HTML, Assembly, JavaScript, Bash/PowerShell scripting, OWL, SQL, UML, Visual Basic for Applications |
| Frameworks | ROS, Qt, PyTorch, Spring Boot |
| Tools | MATLAB, Simulink, Git, GitKraken, GitHub, GitLab, Gazebo, Protégé, Choregraphe, Arduino, PTC Creo, Doxygen, RegEx, Postman, PostgreSQL |
| Standards/Protocols | POSIX, HTTP, IPv4, IPv6, TCP/IP, UDP |
| Soft Skills | Problem solving, communication, teamwork, time management, leadership, accountability |

ACADEMIC PROJECTS

- ◊ Mentore — *PyQt5, Protégé, OWL 2* GitHub
Implementation of a graphical user interface for the Mentore robot's screen. The GUI collects user inputs and choices; the data is then sent through an API to the ontology.
- ◊ Advanced and Robot Programming — *C, POSIX, Unix* GitHub
POSIX-compliant C solution featuring the creation of several independent processes, that are leveraged to exchange a data token inside a local network.
- ◊ Software Architecture — *Python, Bash, NumPy, Matplotlib* GitHub
Design and implementation of a software component for the teleoperation of the arms of the Baxter robot simulation in Coppelia.
- ◊ Experimental Robotics Laboratory — *Python, ROS, Gazebo, OpenCV, NumPy* GitHub
Collection of exercises and assignments revolving around architecture design and robot simulation.

PUBLICATIONS

- [1] Dario Guidotti, Armando Tacchella, Stefano Demarchi, and Andrea Pitto. Formal verification of neural networks: a case study about adaptive cruise control. In *ECMS*, volume 36, pages 310–316, June 2022.

PERSONAL PROJECTS

- ◇ OS Virtualization and Remote access — *VirtualBox, Hyper-V, WSL, Docker, RDP, VNC, WoL*
- ◇ Linux desktop experience — *Ubuntu, Arch Linux, Raspberry Pi OS, Knoppix, Linux Mint*
- ◇ SSH connection, file management, key authentication — *ssh, ssh-keygen, scp, sftp, screen, tmux*
- ◇ Microsoft Excel Macro development with Visual Basic for Applications
- ◇ Home network management via Raspberry — *DNS filtering, VPN*
- ◇ JetBrains and Microsoft development environments/tools, Vim text editor
- ◇ Front-end web development basics — *Sass, TypeScript, HTML, Angular, Node.js, npm*
- ◇ Back-end web development basics — *Java, Spring Framework & Spring Boot, Maven, PostgreSQL/H2 with Hibernate, REST API*

LANGUAGES

- ◇ Italian — Native
- ◇ English — Proficient (C1/C2)
- ◇ Spanish — Independent (B1/B2)