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

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, 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

 $\mathbf{Git}\mathbf{Hub}$

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

 \mathbf{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

GitHub

Design and implementation of a software component for the teleoperation of the arms of the Pouter relation in Coppelia

of the Baxter robot simulation in Coppelia.

♦ Experimental Robotics Laboratory — *Python, ROS, Gazebo, OpenCV, NumPy* 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
- \diamond 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)