



University project in Digital Programmable Systems

[04/2022 – 07/2022]

- Design, development in C and testing of a 3D scanner using a VL53L1X sensor on STM architecture in STM32CubeIDE environment

University project in Human Machine Interaction

[03/2022 – 07/2022]

- Modeling, rendering and rigging of a hexapod robot using Blender, creating an interactive 3D simulation through Unity Engine using the developed model.

University project in Power Electronic Converters

[04/2022 – 06/2022]

- Analysis and testing of half-bridge and full-bridge power converters using NI Multisim

University project in Functional Design

[04/2022 – 04/2022]

- Mechanical study through solidworks of a spherical wrist that exploits a differential.

University project in Dynamical Systems Theory

[11/2021 – 01/2022]

- Modeling and controlling a flotta of UGV through distributed consent theory, using Matlab and Simulink

Bachelor's thesis project "Multiple attacks detection on discrete event system"

[06/2021 – 09/2021]

- Model-based design of Fault-Tolerance control logics for a discrete event system using Matlab and Simulink, implementation on a microprocessor

LANGUAGE SKILLS

Mother tongue(s): **Italian**

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Programming languages

MySQL / Kotlin / C# / C / ROS2 / HTML / Python / CSS / XML / ROS / Bootstrap / Java

IDE

Android Studio / Eclipse / Visual Studio / STM32CubeIDE / MDK Keil uVision / GitHub / PyCharm

Soft skills

Creatività / Problem Solving / Curiosità / Apprendimento rapido / Approccio critico / Team Working

Model Based Design

Matlab / Simulink



CAD modeling

SolidWorks / Rhinoceros / Inventor / Fusion360 / Blender

Electronic

Fritzing / Simscape electric / NI Multisim

3D Printing

UltiMaker Cura / IdeaMaker

Interactive simulations

RViz / Gazebo / Unity Engine

Computer Graphics and UX

Suite Adobe (Illustrator, InDesign, Photoshop) / Figma / Autodesk Sketchbook

Office automation

Word / Keynote / Excel / Numbers / Pages / Power Point

DRIVING LICENCE

Driving Licence: B 28/10/2016 – 08/11/2026

HOBBIES AND INTERESTS

Arts

Drawing, Painting

Music

Piano

Fencing

Foil

I AUTHORIZE THE TREATMENT OF MY PERSONAL DATA PRESENT IN THE CV IN ACCORDANCE WITH ART. 13 OF THE LEGISLATIVE DECREE OF 30 JUNE 2003, N. 196 "CODE REGARDING THE PROTECTION OF PERSONAL DATA" AND OF ART. 13 OF THE GDPR (EU REGULATION 2016/679)

Bari, 15/12/2023

Fabio Mastromarino