MATILDE **PICCOLI**

Visit my **portfolio** at:

matilde piccoli portfolio

CONTACT

9 +44 7747 651727

@ matilde.piccoli@gmail.com

in matilde.piccoli

Master student in Electronic and Electrical Engineering with expertise in Circuit Design, Robotics, and ML, looking for research opportunities. Interest in Biomedical and NeuroEngineering applications.

AREAS OF EXPERIENCE

System Engineering • Robotics • Machine Learning Digital Verification • Analogue Circuits Design • Biomedical Electronics Embedded Systems • Object-oriented Programming • Team-working

SKILLS

System Verilog, Python, C++, Matlab, Linux, GitHub, CAD, HTML and CSS

EDUCATION

IMPERIAL COLLEGE LONDON (UK)

2019 - Present

MEng in Electronic and Electrical Engineering

GPU Design Verification Engineering - Placement

Hardware Design Engineer - Undergraduate Role

- On track for **First Class Honors**, awarded Best Project of the Second Year.
- Main modules:
 - Biomedical Electronics, Analogue Integrated Systems.
 - **Robotic Manipulation** (Matlab, CAD), Embedded Systems (Python, C++).

a unit withing the Apple GPU in an extremely time-sensitive environment.

Verilog and UVM Library); Developed analytical and team-working skills.

- Machine Learning & Deep Learning (Python), Artificial Intelligence (Algorithms, Prolog).
- Circuit & Systems Design (Digital and Analogue Systems, FPGAs, PCB, Verilog).
- **Control Engineering** (analysis and design of linear control systems, MATLAB).
- Digital Electronics and Computer Architecture (CPU design).
- Member of the MedTech and Robotics Societies; student at the Imperial College Business School.

Junior Design Verification Engineer role in the GPU team at Apple, responsible for the Verification of

Extensive experience in Digital Design and Verification using Object-Oriented Programming (System

Junior System Engineer in the CPU team at Arm, world leading technology provider of processor IP. Successfully designed and verified an interface unit for the communication between processors, with memory system; developed technical specifications for consumer hardware projects; Received highly

EXPERIENCE

APPLE (UK)

March 2021 - Present

ARM (UK)

Mar 2021 - January 2022

IMPERIAL COLLEGE LONDON (UK)

Jan - Apr 2022

IMPERIAL COLLEGE LONDON (UK)

Jan - Apr 2022

IMPERIAL COLLEGE LONDON (UK)

Jan - Apr 2022

Robotic Arm - Project

commitment to learning.

Developed the kinematic model and motion controller (Matlab) for a Robotic Arm, to implement different tasks (moving and reorienting blocks, drawing, making sushi); designed (CAD) and 3Dprinted multipurpose grippers and other task-specific tools; worked in a extremely time-pressured

positive reviews from manager and colleagues for my quick progress in the project and my

Achieved upper 1st class and highly positive feedback following the live demonstration.

Aguapolis IoT System - Start-up Prototype

- Ideated and developed an IoT system able to identify the water quality, mapping and giving information of the sources and safety of water in the area; the 3d-printed portable device uses multiple sensors, raspberry pi, encrypted communication, a ML model for the data analysis, and a user-friendly web-app (Flutter) to track the measurements and view the local sources of water.
- Achieved upper 1st class and highly positive feedback during the marketing presentation.

Autonomous Mars Rover - Project

- Collaborated in an interdisciplinary project to implement an autonomous Rover detecting and mapping objects; Leading role in the implementation and testing process of the Drive System, comprehensive of movement and error correction algorithms and PID controller coded in C++ (Arduino, SMPS, motors based on the data collected by optical sensor and camera).
- Achieved upper 1st class individual mark and the award for Best Project of the Year

HOUSTON METHODIST MEDICAL CENTRE (US)

June 2018

Biomedical Research-Work Shadowing

- Selected for a competitive stage at one of the biggest centres for medical research in the world.
- Assisted at the development of innovative technology for the cure of cancer (remote-controlled drug delivery implants) and diagnostics' technologies; Developed research-oriented approach.