FRANCESCO DETTORI
COMPUTER ENGINEER

EDUCATION

EIT DIGITAL MASTER SCHOOL (POLIMI/UPS)
Dual Degree in Human Computer Interaction & Design | Sept 2022 - Sept 2024

- First year: **Politecnico di Milano (#1 University in Southern Europe according to Europe University Rankings)**, Second year: **Université Paris-Saclay.** Average grade in POLIMI: **28/30**. Average grade in UPS: **18/20**
- Relevant modules: *Advanced User Interfaces*, *Design of Interactive Systems*, Databases2, Software Engeneering2, Digital Business Innovation Lab, Computing Infrastructure, *Mixed Reality & Tangible Interaction*.

UNIVERSITÀ DEGLI STUDI DI SASSARI, UNISS
Bachelor's Degree in Computer Engineering | Sept 2019 - July 2022

Third most prestigious medium-sized university in Italy according to CENSIS
- Grade: **105/110**. Ranking: **1/93**
- Relevant modules: *Algorithms and Data Structures*, Advanced Electronic Systems, Operating systems, Object-oriented programming, *Databases and Web Technologies*.

KEY PROJECTS

- **Venture Capital Web Platform:** Developed an interactive web platform for venture capital engagements, incorporating advanced web technologies and user-centered design principles. Conducted user testing with 20 participants, ensuring strong SEO and accessibility with tools like WAVE and Lighthouse.
- **Empathetic chatbot:** engineered an empathetic conversational agent by training a deep learning model to provide data for a formal verification framework. This framework is grounded in statistical model checking and hybrid stochastic temporal automata. This work led to the *co-authoring and submission of a paper titled 'Towards a Formal Framework for Modelling Therapy Sessions' to the ACL Rolling Review in October 2023.*
- **Mixed Reality at Brera Astronomical Museum**: Implemented a mixed reality tour with Nreal glasses, incorporating gamification to enrich visitor learning and engagement at the museum. Our solution was showcased at the museum for a duration of 3 days. Additionally, we conducted user testing with approximately 25 participants, resulting in a SUS score of 78.85. Watch the demo video here.

IT & SOFTWARE

- **Proficient:** *Unity*, *HoloLens 2*, *Nreal Glasses*, C++, *C#*, SQL/MySQL, JavaScript, HTML, *Python*, CSS, Bootstrap, Tailwind, Verilog, Figma, *ComfyUI*
- **Familiar:** C, jQuery, AJAX, Vue.js, Nuxt.js, React, TypeScript, PHP, Astro, Java, Adobe Photoshop

PROFESSIONAL EXPERIENCE

TEAM VENISE, LISN, UNIVERSITÉ PARIS-SACLAY
Research Engineer| March 2024 - March 2024

- Conducted *optimization of stable diffusion models* to increase frame rates *from 18fps to 160fps*, using frameworks like Stream Diffusion, Comfy UI, One Diff.
- Investigated and applied novel methodologies for model acceleration by integrating One Diff with Stable Diffusion.
- **Co-authored Research Paper**: Dettori, F., Maruscsak, D.,Sandor, C., "High-Speed Stable Diffusion for AR Magic Mirrors.", in preparation for IPOL MLBriefs 4.

DRIVEHIA
Chief Executive Officer | Feb 2023 - Dec 2023

- **StartCup Sardegna 2023 (Regional Innovation Award):** Achieved second place, winning a *prize of €3,000*, and the "*Green&Blue*" mention for the best business project impacting climate change.
- **PNI (National Innovation Award):** Delivered my *pitch to an audience of over 500 people* and *managed a booth in the expo area for two days*, engaging with other entrepreneurs, investors, and potential customers

PROJECT ATLANTICO, UNISS, POLICLINICO CELIO
Software Architect at Sassari's University Clinics | Oct 2021 - July 2022

- Development of mixed reality environments, on Unity platform, for motor rehabilitation purposes through the use of a Microsoft HoloLens 2.
- Realization of software tools for the management of communications between the devices used in the project.
- Development of the system architecture, managing communications and synchronization.

Click here for my linkedin profile

03/10/2000

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SKILLS

Team work   Resilience   Critical thinking

LANGUAGES

Mother tongue

Full professional

Beginner

Beginner

BIO

Francesco is a passionate computer engineer with a focus on Human-Computer Interaction and Design, enrolled in a dual degree at the EIT Digital Master School. Passionate about innovation and entrepreneurship, he aims to contribute to projects that leave a lasting impact while building a robust network of brilliant minds globally. An avid traveler, he appreciates new cultures and diverse hobbies. Francesco is open to collaborations and enjoys sparking conversations that lead to impactful projects.

TRAVELING

Around Italy, Spain, Croatia, Portugal, Germany, Poland, Switzerland, Greece, Romania, United Kingdom, Turkey, Slovakia, Hungary, Sweden, Estonia and Finland