Sofia d'Atri

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EDUCATION

ETH Zürich | Master of Science - MS, Computer Science | Zurich, Switzerland   Sep. 2024 - Present
- Major: Visual and Interactive Computing

Università della Svizzera Italiana | Bachelor of Science in Computer Science | Lugano, Switzerland   Sep. 2021 - June 2024
- **Full tuition scholarship of merit** from the Foundation for the Lugano faculties of the Università della Svizzera italiana.

Liceo Enrico Medi |Scientific High School Diploma | Villafranca VR, Italy   Sep. 2016 - June 2021
- Exam on **"Classic Cryptography and Quantum Computing - RSA vs Shor's algorithm"**. Final grade: 100/100.

EXPERIENCE

Physics Simulation Scientific Internship | IST Austria | Vienna, Austria   July 2024 - Sep. 2024
- Helped develop a two-dimensional prototype **surface tracker**, focusing on how attributes (e.g. color, texture, or physics simulation variables) are transferred as the mesh deforms and as the surface undergoes topological changes.
- Potential applications are continuum mechanics simulations using the **material point method** (MPM) and foam simulations.

Data Management and Workflow Automation | Kellerhals Carrard | Lugano, Switzerland   Dec. 2022 - Present
- Designed and executed **automation pipelines** using Microsoft Power Automate, streamlining document creation, email drafting, and messaging processes.
- Efficiently managed **databases**, implementing **relational models** and **SQL queries**.
- Provided **technical support** and participated in testing phases for the selection of new company programs.

Quantum Computing Lectures and Conferences | Various high schools in North Italy   Feb. 2022 - Mar. 2023
- Taught high school level classes on quantum computing with theoretical lectures and programming labs.
- Held a conference on state of the art of quantum computing for a general non-expert public.

Web Developer | Futura Sistemi | Sommacampagna, Italy   June 2019
- Designed and developed three **websites**, tailoring each to the unique needs of diverse clients.
- Identified and solved bugs in a pre-existing **authentication system**.

PROJECTS

Raytracer 🔗 github.com/cosmcif/raytracer   Dec. 2023
- Created a stochastic raytracer that won the 2023 Computer Graphics Rendering Competition.
- Features include Perlin noise textures, image texturing, optimization, custom obj loader.
- **C++**, glm, OpenMP, Wavefront obj, Blender, Autodesk 3DS Max

JourneyTales 🔗 gitlab.com/usi-si-oss/teaching/projects-showcase/sa4/team-4-pufferfish   Mar. 2023 - June 2023
- Full-stack developer in a 12 person team to create a travel social media web application.
- Developed a responsive application with OAuth2, friendship features, and real-time notifications.
- **Java Spring Boot, Vue,** MongoDB, JUnit

HandShake 🔗 github.com/ogs-at-usi/handshake   Nov. 2022 - Dec. 2022
- Built an instant messaging web application in a group of 5 people with video calls, group chats and friends.
- Contributed to **backend** and **frontend** on features such as layout, stickers and led an **ad campaign**, including promo videos.
- **Vue**, **vuetify**, **node.js**, express.js, MongoDB, web sockets, material design, mocha, MEVN stack

ACCOMPLISHMENTS

Junction 2023 Hackathon | *Helsinki, Finland* 🔗 github.com/CuremateJunction/frontend   Nov. 2023
Qiskit Localization Contributor - Platinum Level Translator - 2022 | [link]   Nov. 2022
CyberChallenge.IT | *CINI National Cyber Security Laboratory* [link]   Feb. 2021 - June 2021

LANGUAGES

Italian native | **English** proficient | **Spanish** intermediate | **French** basic