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MARCO SELVATICI

EDUCATION

BEng in Computer Engineering	**Imperial College London**	**2017 - Present**

- **Best student** of the course (~60 students). Nominated best student in the Electronics Department (~170 students) in 1st year.
- **Maximum grade** (first-class honors) in all the subjects, with over 90% in all Computer Science subjects.

High School Diploma	**Liceo Scientifico F. Alberghetti**	**2012 - 2017**

- Graduated with **score 100/100** and a commendation. Full marks in all the exams.
- Consistent **best academic performance** among all the students in my year between 2014 and 2017.

EMPLOYMENT

Software Engineer, Intern	**Facebook**	**July - October 2019**

Worked in Facebook AI Research, contributing to the building and testing of a Distributed Reinforcement Learning system.
Contributed to the development of new RL environments, and built analytics tools to support AI researchers.
Used Python and C++ (for performance-critical parts). Used gRPC for inter-process communication.

Full Stack Developer, Part Time	**Standard Ethics**	**January - June 2019**

Designed and built a full stack, AWS based web application to support the job of Standard Ethics analysts (in JavaScript).

- Database and backend contain sensitive information and proprietary rating algorithms.
- The system provides authentication mechanisms, and multiple levels of access to data and services.

Software Engineer, Intern	**Google**	**June - September 2018**

Worked in the Google Assistant Suggestions team. Accomplished tasks include (all in C++):

- Built Trending Suggestions: use Google Search data to generate suggestions about trending topics.
- Improved quality of Suggestions for non-English languages.
- Created internal tools and improved infrastructure.

Software Engineer, Intern	**SpecialVideo**	**July - August 2016**

Feasibility study for an Optical Character Recognition (OCR) based application.
Created a tool that performed OCR readings with three different C++ libraries and compared their performances.

PROJECTS AND ACTIVITIES

- Built a simple **real-time multiplayer gaming platform** based on Microsoft Azure services (during a hackathon). Frontend: JavaScript. Backend: C# with SignalR library. **2019**
- Built a **compiler** from a subset of C to MIPS assembly and implemented a VM to run MIPS binaries (both in C++). **2019**
- Followed online courses by Berkeley University and UCL about **Neural Networks** and **Reinforcement Learning**. **2018-19**
- Built an **FPGA-based real-time computer vision system with an AI** able to challenge humans at the connect-4 game. The AI algorithm was implemented in Python while the FPGA was configured with a Hardware Description Language. **2018**
- Wrote a tutorial on the cutting edge **Webassembly** technology (currently has around 20 visitors per day). **2018**
- Selected for a 14-weeks project with **Facebook** to develop a Web App based on Webassembly (using JS and C). **2018**
- Project "Voglia di Informatica": **tutored** a group of pupils for around 80 hrs in preparation for the Italian Informatics Olympiads. One of my teams won a silver medal at the national level and placed fifth at the international level. **2016-17**
- Selected for **two weeks of full-immersion Algorithms & Data Structures courses** with the other top 20 Italian Informatics Olympiads contestants. The language used for competitive programming was C++. **2016**

AWARDS

- Included in the Imperial College Dean's List (**top 10% students** within the University) in every academic year. **2018-19**
- Selected as one of the **top 20 students in Italy** for Computer Science and related courses. **2018**
- Awarded with the IET prize for the **best student in the Electronics Department** at Imperial College. **2018**
- 13th position at Italian **Individual Informatics Olympiads** (top 0.01% over 20'000+ contestants). **2016**
- 6th position at Italian **Informatics Olympiads for Teams** (top 3% over 200+ teams). **2016**

LANGUAGES

Italian (native), English (fluent).