Marco Biroli
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Git: https://github.com/MarcoBiroli
Born 16/01/2000
Italian & French

➢ STUDIES
- ❖ 2019/2020: L3 of Ecole Normale Superieure, Majoring in Physics. Average in Physics: 15.5/20, Math/CS average: 19.5/20.
- ❖ 2018/2019: BoS of Ecole Polytechnique, 3, Majoring in Mathematics and Physics, GPA: 4.2/4.0. S4, GPA: 4.2/4.0.
- ❖ 2017/2018: BoS of Ecole Polytechnique, S1, GPA: 4.12/4.0. S2, GPA: 4.17/4.0
- ❖ 2014-2017: Ecole Active Bilingue Jeannine Manuel (Paris 15ème), Baccalauréat Spécialité Mathématiques Mention Très Bien.

➢ AWARDS
- ❖ Excellence Scholarship from the Ecole Polytechnique Foundation, 2018- 2020.
- ❖ Diploma of Bachelor of Ecole Polytechnique Summa Cum Laude.

➢ INTERNSHIPS
- ❖ 2019 (June 15 – Start of August) – One-and-a-half-month internship at CPHT (centre the physique théorique) on "Quantum localization transitions in quasi-periodic lattice systems" in collaboration with Alessandro Pacco. Topic: Critical and fractal properties of quantum particles in quasi-periodic potentials. Realization of numerical calculations, analysis of the data, critical discussion of the numerical results, and interpretation. **Supervisor: Laurent Sanchez-Palencia (CNRS Research Director and Prof CC at Ecole Polytechnique; Head of the Quantum Matter group at CPHT).**
- ❖ 2018 - Two months internship at LIX (Laboratoire Informatique de l'X) where I developed an algorithm for Path/Motion Planning that I had come up with during the year. I also started building a graphical interface that would regroup all well-known path/motion planning algorithms. We are currently drafting a research paper. **Supervisor: Adina Panchea, PhD at LIX (Laboratoire Informatique de l'X).**
- ❖ 2015 – Two weeks internship at l'ESPCI (École supérieure de physique et de chimie industrielle) where I worked on modelling the 3rd law of thermodynamics for active matter which I did and then analyzed using image processing with MATLAB. **Supervisor: Olivier Dauchot (Deputy Director of CNRS at l'ESPCI, head of the EC2M research team).**

➢ COMPUTER SKILLS
- ❖ Computer Languages:
    - o Python (Excellent)
    - o C++ (Good)
    - o MATLAB (Good)
- ❖ Computer Software:
    - o Mathematica, MATLAB, Simulink (&Stateflow), IDLE, Qt, LaTeX

➢ LANGUAGES
- ❖ French (Native language)
- ❖ Italian (Native language)
- ❖ English (Native language)
- ❖ Spanish (B2)

➢ EXTRA-CURRICULAR ACTIVITIES & COMPETITIONS
- ❖ Concours General de Physique-Chimie – 2017.
- ❖ Ranked 6th in the world with congratulations from the jury for my young age in the **Rover On Mars Challenge** from MATLAB & Simulink in 2015.
- ❖ Ranked 100th in the world in 2014 in the competition **Coders Strike Back from CodinGame.**
- ❖ Academic Representative for Physics in the Bachelor of Ecole Polytechnique.
- ❖ Participated to the concours national universitaire d'escrime for the Ecole Polytechnique.

➢ HOBBIES
- ❖ I am also very enthusiastic when it comes to sport competitions, I have been doing fencing for 5 years and this year I went to the national university competition by team where we scored 5th place. I also do a considerable amount of climbing.