Edoardo **Debenedetti**

MSc Student in CS @ EPFL | Research Intern @ CYD Campus

☐ (+41) 76 208 2434 | ✉ edoardo.m.debenedetti@gmail.com | 🏠 edoardodebenedetti.me | 🐙 dedeswim | 🔗 edoardo-debenedetti

Education

EPFL - Federal Institute of Technology Lausanne   *Lausanne, Switzerland*

MSc in Computer Science   *Sep. 2019 - Feb. 2022 (Expected)*

- **GPA 5.41/6**, focus on **Machine Learning ∩ Security ∩ Privacy**.
- Worked on a **research** project about **deepfakes** counteraction via influence functions at **Prof. Troncoso**'s SPRING Lab.

PoliTo - Turin Polytechnic University   *Turin, Italy*

BSc in Computer Engineering   *Sep. 2016 - Jul. 2019*

- **GPA 28.4/30**, graduation mark 110/110, **top 9%**.
- **Exchange year at 同济大学** (Tongji University), in Shanghai (China), during my entire sophomore year, supported by a **full scholarship** granted to the top 31% applicants.

Navy Military College "F. Morosini"   *Venice, Italy*

High School Diploma   *Sep. 2013 - Jul. 2016*

- Selected to lead sophomores as **prefect** during my final year.
- **Military training** on Italian Navy's Ships and at Italian Navy's Marine Corps.

Experience

armasuisse Cyber-Defence Campus   *Lausanne, Switzerland*

Research Intern   *Aug. 2020 - Feb. 2021*

- Cyber-Defence Campus is as the Swiss equivalent of DARPA, a **research center of the Armed Forces** for the cyber-defence capability development. I am being hosted and supervised by Dr. Humbert.
- Conducting research about efficient ways to have **machine learning** models **unlearn** training points efficiently, for **privacy** purposes. Tools: **PyTorch**, **PyTorch Lightning**, **Comet ML**, and **Python**.

Reply   *Turin, Italy*

Software Engineering Intern   *Nov. 2018 - Feb. 2019*

- Reply is one of the top IT consulting groups in Italy, with revenue worth €1B+ in 2018.
- Developed a **chatbot** that answers questions about GDPR law, using **TypeScript**, **Redis**, **MongoDB**, **IBM Watson Assistant**, and **Docker**.
- Worked on **RPA**, using **Python**. One of the bots I developed **decreased a task duration by 88%,** without requiring human intervention in it.

Projects

Database Systems Project   *Graded 6/6*

- Implementation of **Jaccard similarity based LSH for approximate K-NNs**.
- Implementation of a **MapReduce-friendly theta-join** according to the 1-Bucket-Theta algorithm with additional Reduce optimizations.
- Stack: **Scala** and **Spark**.

NeurIPS 2019 Reproducibility Report   *Graded 6/6*

- Reproducibility report of a NeurIPS 2019 paper about **black-box adversarial attacks against ML models**, submitted to the NeurIPS 2019 Reproducibility Challenge.
- With our re-implementation we **reduced by 76% the median attack time** wrt the paper. Stack: **Python**, **PyTorch**, LaTeX.

Extra

JEToP (PoliTo's Junior Enterprise)   *Turin, Italy*

International Manager   *Oct. 2018 - Jun. 2019*

- **Executive board** member responsible for external relations of the Junior Enterprise. Signed **8 new partnerships.**
- Past positions (since Oct. 2016): Fundraising & Partnership Assistant, IT Consultant.

LeadTheFuture

Mentee   *Sept. 2019 - Current*

- Selected to be part of the **leading mentorship organization for STEM students in Italy** - Acceptance rate < 20%.
- Held a **mentoring session** about MSc admissions at EPFL.

Languages

- **English**: Fluent, TOEFL iBT 108/120, C1.   **Italian**: Native speaker.   **French**: Intermediate.