VALERIO
VALENTE

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Portfolio Website (with **projects**): https://valeriova96.github.io

Awards and Acknowledgements

Finalist of HUAWEI Seeds For the Future program

The program consists of webinars on technology, leadership, entrepreneurship, and Chinese culture, at the end of which a Tech4Good project must be developed. **Only 50 students per country are selected** (acceptance rate 0.5%) and split in teams of 5. My team and I won the first competition stage, being the only 5 Italians who gained the access to the final. My role in the competition was:

- Develop the mock-up of our application exploiting UX/UI methodologies,
- Develop the business plan investigating budget, competitors, and investors.

Education

Bachelor of science at Roma Tre University | December 2019

BCS in Software Engineering. Main courses:

- **Algorithms & Data Structures** – learned what the most important data structures are (arrays, linked lists, hash tables, trees, …) and algorithms used to interact with them.
- **Object oriented programming** – used **Java** to program a game for which I had to perform refactoring tasks from time to time as the lectures went on.
- **Databases** – learned how relational databases work and how to create and query them thanks to SQL (**PostgreSQL**).
- **Operative Systems** – learned how Unix based os work and how to handle signals and manage file with the **C** language. Also, I learned shell commands and regular expressions.
- **Software Design & Analysis** – learned the most important techniques to convert use cases into actual code thanks to **UML** and most famous design patterns (observer, facade, iterator, …).

Master of science at La Sapienza University (English) | January 2023

MSc in Engineering in Computer Science. Main courses:

- **Machine Learning** – learned the most important concepts of statistics and probability and how to create and train learning models (Decision Trees, Support

Vector Machines, Neural Networks, …). I used Python and many of its popular libraries such as ScikitLearn, Pandas, NumPy and TensorFlow.

- **Deep Learning** – learned the most famous deep learning architectures like generative adversarial networks, transformers, etc. I joined a team and made a practical project using Python and PyTorch to create a deep learning architecture from a research paper.
- **Big Data** – dove into the law of large numbers and all its practical caveats. Studied how to represent big data in compact ways thanks to powerful tools like Singular Value Decomposition (SVD) and MapReduce.
- **Algorithm Design** – learned advanced algorithms and design techniques. This encompasses but it's not limited to Dynamic Programming, Randomized Algorithms, NP problems, etc.

Research Project

I spent last semester working to an **NLP project**, i.e., Deep Learning model able to validate a social media post with respect to some specific policy (like fake news policy from Facebook). This allowed me to:

- obtain a deeper knowledge of the Python programming language and its popular libraries (such as PyTorch and NumPy)
- exploit and understand popular advanced architectures like **Google's BERT** and **state-of-the-art research tools** like the attention mechanism
- having **hands on a recent branch of AI**, i.e., meta-learning (MAML).

Experience

Students' representative (September 2021 – September 2022)

I learned how to effectively convey information and how to connect students and professors. In particular:

- learned how to write important emails
- learned how to exchange feedbacks,

Students' tutor (September 2020 - September 2021)

I helped many students to get prepared for math and programming exams. This helped me to achieve:

- better communication skills,
- a deeper knowledge of the fundamentals of both math and programming,
- better time management skills.