Silvio Pavanetto

Curriculum Vitae

6th May 1994
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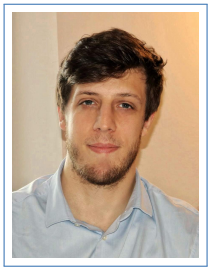
website / portfolio



Education

2016–2019 **Master of Science degree**, *Computer Science and Engineering*, *Politecnico di Milano, Italy. Grade: 110/110 with honors*.

2013–2016 **Bachelor of Science degree**, *Engineering of Computing Systems*, *Politecnico di Milano, Italy*.

Work Experience

November 2021 - Today **Software Engineer**, *Jobtome*, Stabio, Switzerland.

- Developed and deployed, on **GCP**, a job openings categorization model, using NLP deep learning techniques, that classifies approximately **1 million of jobs per day.**
- Developed a scalable software architecture composed by more than **400 crawlers** for many different types of web pages, scheduled and executed in production using **Docker, Airflow and Kubernetes**.

October 2019 - October 2021 **Research Fellow**, *Politecnico di Milano*, Milan, Italy.

- Worked on European projects mainly focused on data ingestion, analysis, and visualization, in collaboration with other universities.
- Cooperated with the rest of my team on every aspect of the projects: requirements, system architecture design, development of software components.
- Main technologies and libraries used: **Python, Flask, FastAPI, Docker, Pandas, Numpy, Matplotlib, Scikit-Learn, Tensorflow, Keras.**

February 2019 - August 2019 **Software Developer**, *Deloitte Digital*, Milan, Italy.

- Worked as a developer on international cloud projects using **Salesforce** technology, which includes several programming languages such as **Java** and **Javascript**.

Publications

ICWE 2020 - Helsinki, Finland *Generation of Realistic Navigation Paths for Web Site Testing using Recurrent Neural Networks and Generative Adversarial Neural Networks.*
Generated high-quality weblog data using deep learning techniques. Compared the results with a suite of data mining algorithms as a baseline. Main types of algorithms used: Recurrent Neural Networks and Generative Adversarial Neural Networks with a reinforcement learning approach. **Link**

CySoc 2021 - Online
VaccinItaly: monitoring Italian conversations around vaccines on Twitter and Facebook;
Monitored 3 millions of tweets and 1 million of Facebook posts of Italian users around vaccines in order to understand the interplay between the public discourse on online social media. **Link**

ICWSM 2021 - Online
A Content-based Approach for the Analysis and Classification of Vaccine-related Stances on Twitter: the Italian Scenario;
Collected and analyzed Italian 3 millions of conversations about COVID-19 vaccines on Twitter, investigating the geographical, temporal and lexical distribution of data. Trained a binary classifier that predicts the stance of tweets towards vaccines, i.e., it applies a "Pro-vax" or "No-vax" label. **Link**

CSCW 2021 - Online
The Contribution of Textual Data from Online Reviews for the Evaluation of Service Quality: The Experience of Italian Museums;
Investigated service quality dimensions of museums through a content analysis based on supervised and unsupervised models for the text of online reviews of 100 Italian museums over a time-period of one year. **Link**

Projects

- *News and Social Media Data Analysis Pipeline related to COVID-19:* development of data collection and analysis pipeline for studying COVID-19 related contents and web dashboard available for citizens. **NLP** techniques and relative Python implementations (**NLTK, BERT, word2vec**) involved in the project. Tools used for building microservices architecture: **Docker**.
  Github Link

- *Italian Museums Reputation:* Development of data collection pipelines and periodical data ingestion systems using **MongoDB, Python**, and web scraping techniques (**BeautifulSoap, Selenium, Requests)**.

- *Vaccinitaly:* Monitor Italian conversations around vaccines on social media (Twitter, Facebook) and understand the interplay between online public discourse and vaccine hesitancy/uptake rates. Techniques and tools used: **MongoDB, Python, Scikit-Learn, Pandas, Transformers, Keras, BERT**.
  Github Link

- *Fanta NBA Predictor:* Prediction of fantasy scores of NBA players in the real games, using data science and machine learning techniques. Collected a huge amount of statistics from different sources and then used them to perform the analysis and the predictions. Main languages and frameworks used: **Python, Numpy, Pandas, Scikit-Learn, BeautifulSoap, Keras**.
  Github Link

Hobbies and Passions

Basketball (I've been playing It since I was 8 years old), Chess, Logical Problems / Puzzles / Riddles, Music (of all kinds): I've played violin and percussion for a few years.

Languages

Italian **Native Speaker**
English **Proficient**