

Gioele Cerri

Curriculum Vitae

Work experience

- 2021 – ongoing **Data Scientist, SNCF Réseau, Saint-Denis**
SNCF Réseau: French national railway infrastructure company. Working on data powering the next generation of railway traffic management systems, in order to help achieve the digital transformation of our industry.
- Implemented **big data ETL pipelines and KPI**, notably for data quality assurance, mainly on infrastructure data (including its topology) and real-time train localisation data (GPS/GNSS and track-side proprietary systems).
 - Developed **full-stack data analysis applications** and dashboards using web technologies.
 - Worked on implementing **European data exchange standards** (TAF/TAP TSI) with train companies and other infrastructure managers.
 - Since 2023, **data owner of real-time train localisation data**: responsible person for the whole data value chain, product owner of the processing software, contact point for internal and external users.
- 2020 **Data Scientist Intern, SNCF Réseau, Paris**
Master thesis topic: “Modelling railway infrastructure”
- Implemented **statistical models** of interactions between different railway objects.
 - Developed **interactive notebooks** to visualize data and explore the results of the analysis.

Education

- 2019 – 2020 **MSc in Mathematical Engineering, Politecnico di Milano, Milan**
Track: Applied Statistics
Main subjects: data analysis, linear and non-linear optimization, C++ programming.
Project work: climate change modelling – creation of a statistical downscaler.
- 2019 – 2020 **Erasmus exchange, Sorbonne Université, Paris**
Main subjects: machine learning, bayesian statistics, fluid mechanics.
- 2015 – 2019 **BSc in Mathematical Engineering, Politecnico di Milano, Milan**
Basic engineering training with a focus on applied mathematics.

Technology skills

- Professional experience Python (Pandas, Scipy, notebooks, Django, FastAPI), Docker, Kubernetes, Helm, Ansible, HTML+CSS+JavaScript/TypeScript, AngularJS, VueJS, Git, PostgreSQL, Agile/Scrum development methodology.
- Good knowledge of the Microsoft Office suite and Windows operating system.
- Academic experience Machine learning and deep learning with Python (scikit-learn, PyTorch), C, C++, R, MATLAB, LaTeX.
- Hobbyist experience Rust, Linux system administration, Wordpress.

Personal skills

- Languages Italian (mother tongue), French (C1, professional experience), English (C1, FCE certification, professional experience)
- Soft skills Good public communication and public speaking skills acquired working at Politecnico di Milano in the prospective students office. Additional organizational and team-working abilities acquired as a scout leader.