

Pietro Bonardi

< Machine Learning Engineer / Data Scientist >

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About me.

Applied Machine Learning Engineer with 3+ years of experience building production ML systems, risk models and scalable MLOps pipeline in the financial industry. [\[personal-website\]](#)

Work Experiences.

ML Engineer | Data Scientist @ ING

Milan, IT [Nov.2022-Present]

- Architected a ML framework for data science projects across ING. It includes a **feature creation engine** that significantly accelerates model development cycles and ensures high code quality. Adopted by **10+ engineers** across multiple projects.
- Built and deployed an **early warning signal system** to predict **delinquencies across ING products**. Fully orchestrated via Airflow, enabling continuous alerting at-risk accounts. This led to a **40% increase in recovery rates**.
- Developed a standardized **Streamlit-based monitoring tool**, able to generate reports. Nearly **automates all** monitoring tasks.
- Engineered a scalable ML batch pipeline enabling ING to provide **an always on pre-approved loan offer** for customers. Bringing a **2x YoY increase in loan disbursement**.
- Led internal Python for Data Science course, successfully **training 20+ professionals per cohort**.

 [PySpark](#) | [MLflow](#) | [Airflow](#) | [Optuna](#) | [AWS](#) | [Bash](#) | [CI/CD Pipelines](#) | [Streamlit](#)

Data Science intern @ Fastweb

Milan, IT [Mar.2021-Nov.2021]

- Developed a machine learning classifier designed to **drive remuneration processes** by predicting salary bands.
- Applied **explainable AI** analysis to ensure model interpretability for business stakeholders.

 [Python](#) | [MySQL](#) | [SHAP](#) | [PowerBI](#)

Research Engineering intern @ University of Brescia

Brescia, IT [Oct.2018-Mar.2019]

- Conducted research on Bluetooth Low Energy protocol.
- Implemented a sniffer on board able to **debug BLE connection**. Reduced the cost by 60% compared to market alternatives.

 [C](#) | [Bash](#) | [Linux](#) | [Computer Network](#)

Publication.

Introduction to Quantum Machine Learning

- Authored a peer-reviewed publication explaining foundational quantum ML concepts (QRAM, Grover) and advanced algorithm for applied machine learning practitioners. [\[Paper\]](#)

 [QML](#) | [Latex](#)

Education.

Master of Science in Data Science

[Feb. 2022]

@ University of Milano-Bicocca | [score: 110/110]

Main Courses: Machine & Deep Learning | Probability & Statistics | Statistical Modelling

Bachelor of Science in Computer Science & Engineering

[Oct. 2019]

@ University of Brescia

Main Courses: Software Engineering | Linear Algebra | Calculus | Operating System | Physics

Projects.

Galgo - Genetic Algorithm

- An open-source implementation of the genetic algorithm. Designed to provide a flexible and easily integrable interface for various applications. [\[Link\]](#)

 [Open-source](#) | [Python](#) | [Object Oriented Programming](#)

Path-Finder

- Implemented a simple **visualisation tool** for shortest path algorithms (DFS, BFS, etc.) with the aim of delving more deeply into the study of DSA & Graphs. [\[Link\]](#)

 [Python](#) | [Data Structure & Algorithms](#) | [Graph](#)