



Filippo Vicentini

AI/ML DEVELOPER | DATA SCIENTIST

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SUMMARY

AI/ML Developer at Manni Sipre S.p.A. (Manni Group) with 2+ years of experience engineering production-ready AI solutions to automate industrial processes and optimize business workflows. Holds an MSc in Data Science and BSc in Applied Mathematics (University of Verona) with a strong foundation in machine learning, deep learning, and statistical modeling in Python. Specialized in Generative AI (RAG, AI agents, document understanding) and Computer Vision (Ultralytics YOLO, dataset curation, GPU training, inference optimization). Proven track record in end-to-end deployment of AI and microservices using FastAPI, Docker, and Git, driven by a results-oriented mindset focused on scalable, measurable impact.

SKILLS

Programming & Tooling	Python, SQL, NoSQL, Java, MATLAB, Git, Linux, VS Code
Machine Learning & Deep Learning	scikit-learn, PyTorch (CUDA/GPU), TensorFlow, MLflow
Computer Vision	Ultralytics YOLO, OpenCV, Object Detection, Classification, Segmentation
Generative AI & LLMs	LangChain, LlamaIndex, RAG, AI Agents, Hugging Face, OpenAI, Gemini, Ollama
Deployment & MLOps	FastAPI, Docker, REST APIs, Microservices
Data Analysis & Visualization	NumPy, Pandas, Matplotlib, Seaborn, Streamlit, Power BI, Excel
Languages	Italian (Native), English (Professional Working Proficiency)

EXPERIENCE

Manni Sipre S.p.A. – Manni Group

Mozzecane, Verona

AI/ML DEVELOPER (PERMANENT CONTRACT)

Sep. 2025 – now

- Member of the Business Innovation Office, delivering AI-driven solutions to optimize production and commercial processes, with a focus on measurable efficiency and quality improvements.
- Developed end-to-end computer vision pipelines for automated object detection and segmentation using Python, OpenCV and Ultralytics YOLO; curated datasets, performed labeling/augmentation, and implemented evaluation (mAP, precision/recall) to iterate on model performance.
- Trained and optimized deep learning models with CUDA-enabled PyTorch on GPU, improving inference speed and robustness for production scenarios (batch inference, confidence thresholds, post-processing).
- Built and deployed interactive Streamlit dashboards for real-time KPI monitoring and data exploration, integrating SQL-based data extraction and automated reporting for stakeholders.
- Prototyped LLM/GenAI use cases for document understanding and internal knowledge retrieval (RAG), including prompt engineering and lightweight agent workflows to support operational tasks.
- Owned deployment of AI and non-AI applications, exposing services via REST APIs (FastAPI) and delivering containerized solutions using Docker for reproducible environments and scalable delivery.

Manni Sipre S.p.A. – Manni Group

Mozzecane, Verona

JUNIOR DATA SCIENTIST (INTERNSHIP)

Oct. 2024 – Aug. 2025

- Collaborated with the Business Innovation Department to deliver end-to-end data science solutions for operational efficiency and strategic decision-making.
- Engineered supervised machine learning models to predict production completion times and applied unsupervised clustering techniques for advanced customer segmentation.
- Developed time-series forecasting models to project company sales volumes, identify market trends, and support demand planning.
- Designed and deployed interactive Streamlit dashboards to monitor key business KPIs and track production performance in real time.
- Utilized Python (Pandas, Scikit-learn, NumPy) for data processing, statistical modeling, and pipeline development.

EDUCATION

M.Sc. in Data Science

Borgo Roma, Verona

UNIVERSITY OF VERONA

Oct. 2023 – Jul. 2025

- Focused on data analysis, predictive modeling, and the application of Machine Learning and Deep Learning techniques.
- Knowledge of programming (Python) and databases (SQL) basics.
- Thesis project on predicting industrial machinery processing times using Machine Learning, conducted during an internship at Manni Sipre. Implemented and compared multiple models, including Random Forest, Gradient Boosting, and Neural Networks, to identify the most effective approach for production time estimation.
- Final grade: 110/110 with honors.

B.Sc. in Applied Mathematics

UNIVERSITY OF VERONA

Borgo Roma, Verona

Oct. 2020 – Oct. 2023

- Acquired a strong foundation in algebra, analysis, geometry, computational mathematics, probability, statistics and their applications to financial economics.
- Bachelor thesis on simulating the Credit Default Swap financial instrument using the Java programming language.
- Final grade: 102/110.

LICENSES & CERTIFICATIONS

Fundamentals of Building AI Agents – IBM (ID: ZT2AAEX9APTS)

Coursera

CERTIFICATE

Jul. 2026

- Learned core concepts of AI agents, prompt engineering, and building agentic workflows using IBM tools.

Build RAG Applications: Get Started – IBM (ID: DB30CIHQ6ZXQ)

Coursera

CERTIFICATE

Aug. 2026

- Mastered core RAG architecture, document parsing, vector store integration, and building retrieval-augmented LLM pipelines with LangChain and LlamaIndex.

ACADEMIC PROJECTS

Machinery Production Time Forecasting

University of Verona & Manni Sipre

MACHINE LEARNING PROJECT

- Developed a supervised learning model to predict the production time of industrial machinery based on structural and operational features.
- Implemented and compared several models, including Linear Regression, Decision Trees, Gradient Boosting, XGBoost, LightGBM, CatBoost, and Neural Networks, to evaluate predictive performance.
- Deployed the Python application using Docker and FastAPI on a dedicated Linux server for real-time inference.

Machine Learning for Rain Prediction

University of Verona

GITHUB REPOSITORY

- Developed a binary classification system to predict next-day rainfall using historical meteorological data.
- Implemented and evaluated multiple algorithms, including Logistic Regression, LDA, Decision Trees, Gradient Boosting, XGBoost, LightGBM, CatBoost, and Neural Networks.

Amazon Sales Analysis

University of Verona

GITHUB REPOSITORY

- Analyzed an Amazon India sales dataset to extract operational insights and identify key business trends.
- Performed data cleaning, exploratory data analysis (EDA), and predictive modeling of order rejections using Python.
- Presented actionable insights through an interactive Streamlit web application for real-time data visualization.

Anomaly Detection in Robotics

University of Verona

GITHUB REPOSITORY

- Applied both unsupervised and supervised learning approaches for anomaly detection in robotic movement data.
- Compared different algorithms to assess model accuracy, computational efficiency, and detection reliability.