Daniele D'Avino

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[LinkedIn](#) | [GitHub](#) | [Personal Website](#)

Summary

Highly accomplished Senior Data & AI Strategist and Cloud Solutions Architect with approximately 9 years of experience, including over 7 years dedicated to architecting, developing, and deploying impactful data-driven AI solutions. Proven ability to lead technical teams and act as a trusted advisor to business and technical executives, translating complex requirements into scalable solutions. Expertise in AI/ML (including Generative AI), data strategy, cloud migration, and delivering projects that yield significant business value through enhanced efficiency, cost reduction, and improved decision-making.

Core Competencies & Expertise

- Solution Architecture & Design (Data & AI Systems on GCP)
- Data Strategy & Governance
- Cloud Transformation & Migration (GCP Specialist)
- Technical Leadership & Team Mentorship
- Stakeholder Management & Executive Communication
- Customer Engagement & Requirements Analysis
- Large-Scale Project Delivery & Management (Agile/Scrum)
- MLOps & Automation Pipelines

Cloud Platforms & Technologies

- Google Cloud Platform (GCP): Vertex AI, BigQuery, Cloud Run, Cloud Storage, IAM
- DevOps & MLOps: Docker, Kubeflow Pipelines, Terraform, Git, CI/CD
- Programming & Data Manipulation: Python (Advanced: Scikit-learn, PyTorch, Pandas, NumPy, FastAPI, Plotly), SQL, NetworkX

Data Science & Machine Learning

- Modeling: Regression, Classification, Clustering, Anomaly Detection, Object Detection, Time Series Analysis
- Advanced AI: Generative AI (LLMs, Computer Vision applications), Natural Language Processing (NLP), Embedding Techniques
- Techniques: Optimization (Integer Linear Programming), Bayesian Statistics, Simulation, Graph Theory, Factor Analysis, Dimensionality Reduction

Work Experience

Senior Data Scientist | Sky Group, Milan, Italy | 02/2022 – Present

Provide technical leadership and strategic direction for data science initiatives within the European anti-piracy and cybersecurity division. Collaborate closely with cross-functional teams, product owners, and business stakeholders to define project roadmaps, architect AI-driven solutions on GCP, and deliver tools that enhance network monitoring and security posture.

- Machine Learning Development & Architecture:
    - Architected and led the enhancement of object detection algorithms, defining the technical strategy and coordinating with engineering teams, resulting in a 10% accuracy improvement for critical monitoring systems.
    - Spearheaded the design, development, and deployment of novel Generative AI solutions that streamlined complex analytical tasks, reducing execution time by 50% and enabling new intelligence capabilities.
    - Designed, architected, and managed the deployment of a scalable Machine Learning suite on GCP for detecting illicit IP and user behavior across European broadcast networks. This flagship project involved leading a team of data scientists/analysts and resulted in a 60% improvement in detection accuracy, significantly strengthening the company's anti-piracy efforts.
    - Engineered and implemented an Integer Linear Programming (ILP) optimization engine that minimized API request costs by approximately 30%.
- Cloud Engineering & Architecture:
    - Played a pivotal role in architecting and executing the cloud migration strategy from on-premise VMs to a GCP-native microservices architecture. Designed and implemented key components, leading to a 40% reduction in execution time, improved system scalability, loggind and monitoring.
    - Provided technical leadership and mentorship to data scientists and engineers, establishing best practices through code reviews, architectural guidance, and debugging complex issues.

Data Scientist | Wealthype, Milan, Italy | 06/2018 – 02/2022

Contributed to the design, development, and maintenance of machine learning applications for the wealth management sector, translating complex financial data into actionable insights for portfolio managers and enhancing data-driven decision-making for end-clients.

- Delivered innovative ML solutions that directly contributed to an average 5% increase in customer profitability by optimizing portfolio strategies and personalizing financial advice.
- Spearheaded research and development that led to an international PATENT for a novel, AI-driven customized financial portfolio construction method.
- Led data enrichment, simulation, and optimization projects, utilizing Bayesian programming frameworks.

Quantitative Analyst | AdviseOnly, Milan, Italy | 02/2016 – 06/2018

Developed and managed quantitative investment strategies for a digital asset management platform, catering to diverse financial goals of end customers. Contributed to the analytical backbone of the platform, supporting data-driven investment decisions.

- Collaborated with software engineering teams on the integration of quantitative models into the production platform, ensuring robustness and scalability of the investment strategy engine.

Main Personal Projects

- [Decision Intelligence Application](#): Designed and deployed an end-to-end web application on GCP for fraud detection and customer clustering, featuring a RESTful API backend and an interactive frontend.
- Meteo Adverse Classifier: Developed a classification algorithm using open data to predict adverse climate conditions.
- Network Analysis Pipeline: Created a data pipeline for analyzing submarine telecommunication networks using graph theory and NetworkX.

Main Education & Certifications

- Machine Learning Engineering Curriculum, FourthBrain.ai
- Google Cybersecurity Certificate, Google-Coursera
- Deep Learning Specialization, DeepLearning.AI
- Master's Degree in Quantitative Finance, Università degli Studi di Milano – Bicocca