

Andrea Signori, BSc, MSc, PhD

Email: andrewsignori@gmail.com

Professional Experience

Data Scientist - Healthcare

2021–Present

Top Support – Beijing, China

- Partnered closely with cross-functional stakeholders (engineering, product, UX, and business teams) to translate complex problem statements into statistically sound analytical frameworks and data-driven study designs.
- Designed and executed advanced statistical analyses, predictive models, and machine learning algorithms to generate interpretable insights from large-scale, high-dimensional datasets, supporting evidence-based decision making for patients treatments.
- Led data preparation, validation, and quality assurance workflows, including data cleaning, integration, and monitoring, ensuring robustness and integrity of analytical outputs.
- Acted as a scientific contributor by explaining analytical assumptions, justifying methodological choices, and communicating results to technical and non-technical audiences across geographically distributed teams.
- Proactively identified opportunities to improve data processing efficiency, analytical rigor, and automation, contributing to continuous improvement of data science practices.

Data Scientist

2020–2021

M3NETS Group - Beijing, China

- Supervised and coordinated a statistical and engineering team in developing predictive systems integrated into production environments.
- Defined technical standards for data pipelines and APIs in Snowflake and cloud-based environments, improving scalability and reliability across departments.
- Conducted R&D to optimize machine learning model performance and guide tool selection for production reliability and maintainability.
- Partnered with business leaders and regulatory bodies to align engineering outputs with strategic growth and compliance objectives.

Data Scientist

2019–2020

ITSM Research Centre – Bergamo, Italy

- Designed and implemented predictive and econometric models supporting product innovation and strategic planning.
- Delivered analytical insights through Power BI and Canva and automated reporting workflows, supporting data-driven decision-making for senior management.
- Collaborated with software engineers to ensure robust integration of analytical tools within production systems hosted on Snowflake.
- Participated in interdisciplinary Agile teams using Jira to improve delivery efficiency and system reliability.

Lecturer

2020–2024

University of Bergamo, Italy

- Economics and Management - Undergraduate students;
- Control Systems Management - Undergraduate students;
- Fundamentals of Statistics - Master's students.

Education

Ph.D. in Statistics - Data Science (department: Technology, Innovation and Management)

University of Bergamo (Italy) & Beihang University (China)

- Awarded scholarships for outstanding students (top 5%);
- Speaker at international academic conferences;
- Peer reviewer for scientific journals (gold and silver tier);
- Scientific publications.

Master's in Econometrics & Data Analysis

University of Trier, Germany

- Winner of the Stat-Hackathon competition;
- Winner of the Data Modeling competition (sponsored by Harvard University School of Design);
- Winner of the Startup Competition (regional level);
- Awarded scholarships for outstanding students (top 10%).

Master's in Economics and Data Analysis

University of Bergamo, Italy

Dual Master's degree with *Harvard University GSD (USA)*

- Awarded scholarships for outstanding students (top 10%).
- Awarded scholarships for overseas mobility (USA).

Bachelor's Degree in Economics, Banking, and Finance

University of Brescia, Italy

- Awarded scholarships for outstanding students (top 10%).

Quantitative Analysis Methods

- **Time Series Analysis:** ARIMA, SARIMA, VAR models for forecasting;
- **Panel Data Analysis:** Fixed effects, random effects, and difference-in-differences (DID) to estimate causal effects;
- **Econometric Models:** Structural Equation Modeling (SEM) and Simultaneous Equation Models (SEM) for assessing the impact of multi-factor interactions on demand;
- **Discrete Choice Models:** Logit and Probit models to analyze consumer choice behavior;
- **Machine Learning Models:** Random Forest, Gradient Boosting Machines (GBM), and Support Vector Machines (SVM) for predicting and understanding complex relationships in large datasets;
- **Clustering and Segmentation:** K-means and Hierarchical Clustering; 1

Digital Skills

- Programming Languages and Tools (R, Python, STATA, SAS, SQL and NoSQL, Scala, Overleaf - LaTeX)
- Data Visualization and Reporting (Microsoft Office Suite: Excel, PowerPoint, Microsoft Power BI, Tableau, Canva, Snowflake, SQL, Data Vault 2.0, MicroStrategy)
- Big Data and Cloud Technologies (Big Data: Hadoop, Spark, Apache Nifi, Airflow, Cloud Platforms: Microsoft Azure, Cloudera, Data Storage: IBM Datastage, IRION, ADLS (Gen 2), Azure Data Factory (ADF), DataBricks)
- Geospatial Technologies (GIS Software: QGIS)
- Automation and Workflow Management (Automation with Python, Streamlit, Git, Github)

Interests

Volleyball, Track and Field, Cycling, Half-Marathon and Marathon

Languages

Mother tongue: Italian

Others: **English** (Professional level in speaking, reading, listening, writing, and peer review), **German** (Conversational proficiency), **Chinese** (Conversational proficiency)