

# **Andrea Signori, BSc, MSc, PhD**

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<b>Professional Experience</b>	<b>Data Scientist - Healthcare</b> <i>Top Support – Beijing, China</i>	<i>2021–Present</i>
	<ul style="list-style-type: none"><li>• 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.</li><li>• 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.</li><li>• Led data preparation, validation, and quality assurance workflows, including data cleaning, integration, and monitoring, ensuring robustness and integrity of analytical outputs.</li><li>• 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.</li><li>• Proactively identified opportunities to improve data processing efficiency, analytical rigor, and automation, contributing to continuous improvement of data science practices.</li></ul>	
	<b>Data Scientist</b> <i>M3NETS Group - Beijing, China</i>	<i>2020–2021</i>
	<ul style="list-style-type: none"><li>• Supervised and coordinated a statistical and engineering team in developing predictive systems integrated into production environments.</li><li>• Defined technical standards for data pipelines and APIs in Snowflake and cloud-based environments, improving scalability and reliability across departments.</li><li>• Conducted R&amp;D to optimize machine learning model performance and guide tool selection for production reliability and maintainability.</li><li>• Partnered with business leaders and regulatory bodies to align engineering outputs with strategic growth and compliance objectives.</li></ul>	
	<b>Data Scientist</b> <i>ITSM Research Centre – Bergamo, Italy</i>	<i>2019–2020</i>
	<ul style="list-style-type: none"><li>• Designed and implemented predictive and econometric models supporting product innovation and strategic planning.</li><li>• Delivered analytical insights through Power BI and Canva and automated reporting workflows, supporting data-driven decision-making for senior management.</li><li>• Collaborated with software engineers to ensure robust integration of analytical tools within production systems hosted on Snowflake.</li><li>• Participated in interdisciplinary Agile teams using Jira to improve delivery efficiency and system reliability.</li></ul>	
	<b>Lecturer</b> <i>University of Bergamo, Italy</i>	<i>2020–2024</i>

- 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 Startcup 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)