

Andrea SBARAGLI



PROFILE

Enthusiast **manufacturing data scientist** with a European doctoral experience in the digital manufacturing sector, seeking to leverage an extensive background in data-driven investigation for business use cases. Proficient with ML pipelines, I have successfully developed and maintained multiple scalable and efficient software applications. Passionate about turning distributed datasets into actionable insights to improve business decision-making and operational excellence.

CONTACT DETAILS

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Google Scholar

Personal Website

LinkedIn Profile

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PERSONAL INFORMATION

Citizenship: **Italy**

Languages: **Italian** (Native),

English (C1)

Visa: UK Global Talent

SKILLS

- Python, Matlab
- Pytorch, TensorFlow and Scikit-learn
- Database (InfluxDB, Microsoft)
- NodeRed, Grafana, React, Dash
- Databricks, Data Factory
- MQTT, WebSockets, Rest
- Docker
- Windows, Ubuntu
- GitHub, Google Cloud Platform, Azure
- LaTeX

EXPERIENCE

POSTDOCTORAL RESEARCH FELLOW at *Brighton University, Brighton (United Kingdom)*. **2026.02-present**

DIGITAL TRANSFORMATION LEAD at *Newcastle University, Newcastle Upon Tyne (United Kingdom)*. **2025.03-2026.01**

◇ Position funded by Innovate UK as a Knowledge Transfer Partnership associate with Newcastle University and Merit

◇ **Process optimization:** Translating manufacturing operational needs into digital transformation requirements

◇ **Product owner:** development and coordination of PowerApps (e.g., MES solutions) to improve the operational visibility of manufacturing shop floors.

◇ **ETL pipelines:** Implementation of workflows to store manufacturing-driven data streams into databases.

◇ **Data mining:** Development of feature extracted datasets by fusing manufacturing and design data. These datastreams are leveraged by machine and deep learning models to improve production monitoring, planning, and scheduling.

◇ **Experimental campaign:** coordination of large teams and 30+ stakeholders ranging from management to shop floor workers to deploy digital transformation manufacturing architectures.

◇ **Dashboard:** Design and development of data analytics platforms to turn manufacturing data into actionable KPIs and improve manufacturing monitoring and planning.

PHD CANDIDATE at *University of Trento (Italy)*.

2021.11-2025.01

◇ Design and deployment of **cyber-physical systems** to monitor the efficiency and sustainability of human-centric manufacturing systems

◇ **IoT sensor:** Hands-on with many sensors such as RTLS (UWB), Inertial Measuring Units, Azure Kinect, RFID readers, and Electromyography. Responsible for designing the desired data flow and storage based on business requirements

◇ **ML frameworks/pipeline:** Applied ML algorithms to pre-processed and feature extracted data, enabling target-oriented decision-making. Training, Fine-tuning, and Inference of Pytorch algorithms (supervised and unsupervised) in Jupiter Notebooks and HPC cluster.

◇ **Experimental campaign:** Managing mid-term projects with plant supervisors to meet milestones and business goals. Responsible for architecture installation, data acquisition, and storage. Involvement of 40+ workers in production and logistic environments of both SMEs and multinational companies.

◇ **Dashboards:** Delivering actionable KPIs and KRIs to drive strategic process monitoring and enable efficiency and safety-related business optimizations

◇ **Supervision:** Technical support and mentoring of students for Master's, Bachelor thesis, and freshman Ph.D. students

◇ **Fundings:** Collaboration with interdisciplinary teams to write grant proposals securing €250k+ in funding by effectively communicating research goals to diverse stakeholders

VISITING PHD CANDIDATE at *University of Twente (Netherlands)*. **2023.03-2023.07**

◇ Design and deployment of a **cyber-physical systems** to segment manual activity executions in reconfigurable manufacturing systems using RTLS

◇ **Methods & main duties:** Same outline in the PhD experience

RESEARCH ASSISTANT at *University of Gottingen (Germany)*.

2020.11-2021.06

EDUCATION

MASTER OF BUSINESS ADMINISTRATION. *London School of Economics*. **2025**

MASTER OF SCIENCE IN MANAGEMENT ENGINEERING. *University of Bologna*. **2018-2021**

BACHELOR OF SCIENCE IN MANAGEMENT ENGINEERING. *University of Bologna*. **2015-2018**

ADDITIONAL EDUCATION

COMPUTER VISION FUNDAMENTALS, GOOGLE CLOUD *Coursera*. **2024**

MACHINE LEARNING, STANFORD UNIVERSITY *Coursera*

2021