Federico Bonato

Data Science MSc Student

Personal Info

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Links

linkedin
github
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Languages

Italian (Native)
English (C1)
German (Basic)
Spanish (Basic)

Education

MSc Data Science
University of Potsdam
uni-potsdam.de – Data Science

BSc Astronomy
University of Bologna
corsi.unibo.it – Astronomy

Technical Focus

Machine Learning & Statistics
Bayesian Methods
Remote Sensing & Earth Observation
QGIS & ESA SNAP
Geospatial Data Analysis
Git & GitHub

Experience

Student Research Assistant (HiWi) Charité – Universitätsmedizin Berlin

- Analysis of MEG datasets within a neuroscience research project (LID–OMP)
- Development of Python workflows for neural signal processing
- Scientific data analysis using Python and MNE

Volunteer Data Scientist Data Science for Social Good – Berlin

- Participation in interdisciplinary data science initiatives

Science Communicator Gruppo Pleiadi

- Delivered lessons and workshops on astronomy and natural sciences

Teacher Centro Serenamente

- Tutored high school students in mathematics and physics

Selected Data & Research Projects

- **MEG Signal Pipeline** – Neural signal processing for Parkinson's disease research using Python and MNE.
- **Pandemic Traffic Footprint** – Research software project analysing the relationship between traffic and pollution using geospatial data, Python and GeoPandas.
- **Remote Sensing Analysis** – Satellite imagery analysis and environmental applications using QGIS, ESA SNAP, Rasterio and GeoPandas.
- **Exploratory Data Analysis of German Cinemas** – Statistical analysis and visualisation of public datasets using Python and Pandas.
- **SDSS Galaxy Catalogue** – Statistical analysis of astronomical survey data using Python.

Publication

Proprietà degli ammassi di galassie (2022)
amslaurea.unibo.it/26561
Study on the properties and radiation processes of galaxy clusters.