Paolo SABATINI

Physicist / Data scientist

Born in 1991, I am an experimental particle physicist and an active member of the ATLAS Experiment Collaboration at CERN since 2016. My expertise is data analysis with cutting-edge techniques, such as machine learning (ML/AI) algorithms.

I am a curious, motivated and goal-oriented scientist, able to work either in a team or individually. Keen to learn, enthusiast of new ideas.

CONTACTS

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Nationality Italian

Driving licence B

Site
www.pasaba.eu

LANGUAGES

Italian mother tongue
● ● ● ● ●

English fluent
● ● ● ● ◖

Spanish intermediate
● ● ●

French beginner
● ●

SKILLS

Excellent communication

Good academic writing

Great teamwork attitude

Proactive and curious

Solid **math and statistics** knowledge

Great **problem solving** and planning skills

Multidisciplinarity lover

Committed and **efficient**

WORK EXPERIENCE

○ **2020 - present**
Istituto de Física Corpuscolar (CSIC/UV), Valéncia (Spain)
Post-doctoral researcher

- Member with leading role of several data analysis (Agile) teams using ATLAS experiment data to search for new physics.
- Conduct complex analyses employing ML/AI with rigorous statistical interpretations aimed at publications in high-profile high-energy physics journals.
- Responsible of the sub-group that maintains, develops and monitors the performance of the software that delivers on-line detector alignment data.

EDUCATION

○ **2016 - 2020**
Georg-August-Universität Göttingen (Germany)
Ph.D. in Physics

Thesis defended by a vote of *magna cum laude*.

- Data analysis from the ATLAS experiment aimed at the first statistical evidence of ultra-rare events.
- Teaching assistant for experimental physics lectures. Responsible of two laboratory courses on data analysis.

○ **2013 - 2016**
Universitá di Pisa (Italy)
MSc in Physics

○ **2010 - 2013**
Universitá di Pisa (Italy)
BSc in Physics

COMPETENCES

Software development

- Expert (5+ years) in code development in multiple languages (C++, Python, bash). Experience in Java, javascript, PHP, and HTML.
- Expert in procedures (CI/CD, docker...) and good-practices for software develpment, testing and maintainance on distributed computing resources.
- Proficient database management (SQL) and data handling.

Machine Learning / AI

- Expert in data preparation and design of ML algorithms via main libraries (SciKit, Keras, TensorFlow).
- Expert in classification and regression problems with a wide range of techniques, from BDT to DNN. Experience in anomaly detection and clustering algorithms. Interested in CV and GNN.