Ulysse Virginet

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Professional Experience

PhD Researcher, LPNHE – Sorbonne Université – Paris (75) and JPARC – Tokai (Japan)   Oct 2022 – Sept 2025

- **Lead data analyser and software developer:**
  - Led the development of a track reconstruction software, conducting the development and integration of advanced algorithms, optimizing performance and ensuring seamless implementation within the software framework
  - Designed innovative data-driven optimized models, leading to a 20% improvement in prediction accuracy
- **Project management and coordination:**
  - Managed an international team of 5 people for the installation and commissioning of new detectors during 4 months of stay in Japan
  - Completed the project with success while adhering to a tight schedule
- **Strategic communication and influence:**
  - Published 8 peer-reviewed articles, including one as a sole author
  - Presented research findings at major international conferences in São Paulo, Brazil, and Milan, Italy, engaging with experts in the field

M2 Research Intern, LPNHE – Sorbonne Université – Paris (75)   Mars 2022 – July 2022

- Designed innovative statistical models to analyze experimental data
- Conducted electronics validation for new particle detectors during a one-month research stay at CERN, world's leading particle physics laboratory

M1 Research Intern, Subatech – Nantes Université – Nantes (44)   April 2021 – May 2021

- Developed simulations and statistical analysis for validating a project of a future particle physics experiment

Private Tutor, Mathematics, Physics, Chemistry, English   Sept 2018 – June 2024

- Provided private tutoring to middle school, high school, and undergraduate students, with a 100% success rate in their exams

Education

Sorbonne Université, PhD in Particle Physics   Oct 2022 – Sept 2025

- Awarded a prestigious Sorbonne Université PhD grant in a highly selective process, funding both salary and research expenses
- Received a highly competitive Japanese research fellowship (JSPS) to conduct research in Japan

Nantes Université, MSc in Fundamental Physics   Sept 2020 – Sept 2022

- GPA: 4.0/4.0 – Ranked 2nd out of 27 students

Université de Toulon, BSc in Physics and Chemistry   Sept 2017 – June 2020

- GPA: 4.0/4.0 – Ranked 1st out of 49 students

Skills

Data Analytics : Expertise in applying advanced statistical methods and machine learning algorithms to derive actionable insights and drive strategic decision-making.

Programming: Proficiency in Python (NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch), C++, C, Bash, LaTeX.

Problem-solving: Problem-solving mindset, with a structured approach to analyzing challenges and delivering data-driven and actionable solutions

Project Management: Track record of effective leadership, tasks coordination and results delivery under tight deadlines

Communication: Ability to synthesize and communicate complex ideas clearly and persuasively to diverse audiences, demonstrated through international presentations and publications

Languages: French (native), English (fluent), Spanish (fluent), Japanese (basics)