

LLUIS SALVAT NIELL

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EDUCATION

The University of Manchester

September 2020 - June 2024

MMathPhys (Integrated Master's Degree, Joint Honours) Mathematics and Physics

- Grade: First Class Honours (Expected).
- Relevant Year 3 Content: Regression Analysis, Mathematical Modelling in Finance and Scientific Computing.
- Department of Physics Entrance Scholarship.
- Member of the Algorithmic Trading Society.

Fundacio Collserola

September 2018 - June 2020

Spanish Baccalaureate (Mathematics, Physics, Chemistry and Biology)

- Grade: 9.72/10, Distinction (95th Percentile of Academic Performance).
- Research Project: "The Retail Price Variability of Consumer Goods in Barcelona" (Grade: 10/10).
- 2x Winner of the Poetry Contest.

PROFESSIONAL EXPERIENCE

The University of Manchester & The University of Oxford

June 2022 - September 2022

Computational and Financial Mathematics Research Assistant

- Working under the supervision of Professor Gesine Reinert (Oxford) and Dr Robert Gaunt (Manchester).
- Researching the properties of the GH distribution and its applications to the modelling of financial returns.
- Computationally verifying the optimality of the convergence condition derived in [Gaunt and Reinert \(2021\)](#).

Citadel & Citadel Securities

April 2022

Discover Citadel Europe, Spring Internship

- Attended talks by the Global Head of Business Development, other senior executives and recent graduates.
- Networked with professionals across quantitative research, software engineering and trading.

Marlex Human Capital

January 2022 - June 2022

Machine Learning Engineer, Part-Time (20h/Week)

- Developed an NLP-based classification algorithm for CV scraping fine-tuning RNN and BERT models in PyTorch.
- Trained a Random Forest model to predict the required credit facility with a 97% accuracy.
- Reported directly to the managing director of the executive search division.

Jane Street

September 2021

London Preview Program

- Learned how traders and technologists apply mathematics and computer science in the financial markets.
- Listened to a new graduates panel in which they explained their backgrounds and offered valuable insights.

Nieper

June 2021 - September 2021

Financial Data Analyst, Internship

- Developed a multivariate regression valuation model in Python focusing on the Barcelona property market.
- Assembled a cash flow calculator to increase efficiency when evaluating potential buy-to-let acquisitions.
- Performed a risk assessment and suggested a modification in the company's balance sheet.

MyTutor

March 2021 - March 2022

Academic Tutor, Part-Time (5-10h/Week)

- As part of the MyTutor's Schools Programme, I tutored GCSE Maths and Science to disadvantaged pupils.
- Maintained a 100% attendance rate and received excellent feedback from my pupils.

ADDITIONAL INFORMATION

Technical Skills: Python, C++, R, MySQL, NumPy, Pandas, Matplotlib, PyTorch, TensorFlow and Scikit-Learn.

Knowledge: ML/DL/NLP, Data Structures and Algorithms, Finance, Quantum Mechanics and Philosophy.

Online Courses: Bloomberg Market Concepts, Akuna Capital Options 101 and Hugging Face Course.

Languages: English (C2 Pass at Grade A), French (A2), Spanish (Native) and Catalan (Native).

Volunteering: Data Scientist at Fundacio Girona Est (October 2021 - Present).