Nicolas Anguita

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EDUCATION

Queens' College, University of Cambridge Cambridge, UK | Jan 2025 - Oct 2027
PhD in Computational Neuroscience and Machine Learning

- **Computational and Biological Learning Lab**, Department of Engineering.
- Investigating similarities between brain processes and state of the art AI models.

Imperial College London London, UK | Sep 2020 - Jul 2024
MEng Mathematics and Computer Science - First Class (>80% average, 92% in Master's thesis)

- Distinguished Project award. **Minimax Labs prize awarded for an excellent project showcasing algorithmic development and engineering, or scientific computation.**
- Courses include: Probability Theory, Stochastic Differential Equations, Machine Learning, Philosophy of Mind.
- Master Thesis: Learning Dynamics of Linear Neural Networks, joint with Imperial College and **Gatsby Computational Neuroscience Unit**.

6A* A-Level/equivalent London, UK | Sep 2018 - Jul 2020
City of London School

- Combination of UK (4 A-Levels) and US (7 APs, self-study). **Met university requirements by the age of 15.**
- British Mathematical and Chemistry Olympiad. AP Scholar with Distinction.

WORK EXPERIENCE

BREVAN HOWARD | Trading Intern London, UK | Jul 2023 – Aug 2023

- BH is a leading global macro and multi-strategy hedge fund.
- Learned about financial markets (interest rates, FX, equities), instruments (options pricing) and trading strategies.
- Developed a Machine Learning based trading algo using Random Forest and NLP techniques.
- Researched a quantitative volatility FX strategy using Hidden Markov Models.

BLACKROCK | Summer Analyst - Quantitative Modelling London, UK | Jul 2022 – Aug 2022

- Skills include Statistical Modelling, Java, Python, Pandas, Matplotlib and a number of BlackRock proprietary tools.
- Acquired knowledge on financial mathematics and software implementation to production level.
- Helped senior researcher develop a UK small cap risk model. Data management and risk factor optimization.
- Implemented method to calculate return correlations in linear time by generating sparse covariance matrices.

THOUGHT MACHINE | Software Engineer Intern London, UK | Jul 2021 – Sep 2021

- FinTech company developing cloud based software for financial institutions.
- Helped an engineering team designing the file management system. Learned Kubernetes and Golang.

CITADEL, OPTIVER, JP MORGAN | Spring Insight Events London, UK | Apr 2021 - May 2021

PUBLICATIONS

- **N Anguita***, CCJ Domine* et al. ***From Lazy to Rich: Exact Learning Dynamics in Deep Linear Networks***. Published in two NeurIPS 2024 workshops: M3L (Mathematics for Machine Learning) and UniReps (Unifying Representations in Neural Models). Submitted for publication in ICLR 2025.

SKILLS

Programming Languages: Proficient in Python, Java, C, Golang and Haskell; Some experience with MATLAB and Mathematica.
Languages: Spanish (Native), French (Basic)
Other: Play poker recreationally, avid player of classical and jazz guitar and piano.