# Siddartha Nath

ASPIRING DATA SCIENTIST/QUANTITATIVE ANALYST · MATHEMATICS GRADUATE

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### Education

Imperial College London: BSc (Hons) Mathematics (October 2018 – July 2021)

South Kensinaton, London

- First-Class Honours (specialising in Statistics) ranked top 20% in Year 2 (75.8%) and Year 3 (78.4%)
- Modules Overview: Statistics (Probability/Modelling/Stochastic Simulation/Time Series), Pure (Real/Complex/Numerical Analysis), Mechanics, Mathematical Computation, Algebra, Calculus, Mathematical Biology, Mathematics of Business & Economics and Data Science

Tiffin School: GCSEs and A-Levels (Sept 2010 – June 2017)

Kingston-Upon-Thames, London

- A-Levels: Mathematics (A\* 98%), Further Mathematics (A\* 93%), Chemistry (A) and Economics (A)
- AS-Level: Biology (A)
- GCSEs: 11A\* (English Language, Mathematics etc...) and 1 A\* (with Distinction) in Further Mathematics

## Experience

PayPal: Data Scientist (Jun. 2021 – Present)

Richmond, London

- Executing an 8-week Data Science project, focusing on statistical (multivariate) analysis, to investigate the importance of specific information given by merchants via payload transactions. Analysis will allow merchants to increase their fraud detection capabilities and reduce chargebacks. Using QPull and SQL to query the data and Python to produce the machine learning model analyses.
- Executed a 6-week Data Science project, focusing on creating a rule optimisation algorithm for a non-convex optimisation using a direct search method in Python, to enhance PayPal's Fraud Detection product. Conducted a presentation to the UK Data Team (25 attendees), demonstrating the algorithms' improvement of performance and runtime over the existing algorithm. This led to the deployment of the algorithm in PayPal's rule optimising library.
- Independently designed and installed a machine learning module for feature generation called Rotation Matrix. Created in C &
  Python for an open-source library aimed to improve tree-ensemble methods. Incorporated docstrings, unit testing and
  benchmarking this highlighted a 100x decrease in runtime via Cython compared to Koalas and a 10% increase in accuracy (when
  looking at a multiclass classification crime dataset).

Oxford International College: Academic Mentor (Aug. 2019 – Present)

Cowley, Oxford

- Provided mock interview practice and one-to-one personal statement sessions and taught university admission tests preparation (STEP/MAT/TMUA/CTMUA/CSAT), whereby 6 people have managed to secure offers at Oxford, Cambridge, and Imperial.
- Acted as an EPQ supervisor and assisted 3 students with their projects (discussing Artificial Intelligence and Economics) which strengthened my leadership and time management skills.
- Hosted weekly enrichment lessons on Teams with Computer Science students, focusing on: University Computational Programming (Numerical Integration/Differential Equations), Dynamic Programming, and Data Structures/Algorithms.

1fs Wealth: Data Analyst (Jun. 2020 - Aug. 2020)

Marylebone, London

- Partnered with the CFO, to reproduce Discounted Cash Flow/Valuation Multiples models via Excel and Python to re-evaluate company revenue projections and start-up value, which attracted and later onboarded several venture capitalists.
- Collaborated in a group of 3 to produce an operations manual and competitor analysis database via LaTeX, which enhanced my
  teamwork skills and improved the interactions between clients and employees during the onboarding process.
- Conducted data collection and valuations for over 50 assets (using RPI values) for 1fs platform database via Excel.

MJ Hudson: Research Analyst (Sep. 2017 – Feb. 2018)

Bank, London

- Produced and navigated over 5 presentations used by our Managing Director in particular, for a prestige panel event, which focused
  on future tech innovation and cryptocurrency. This helped MJ Hudson widen its' network pool and get its name onto the Fintech map.
- Researched, analysed and databased market competition to evaluate their performances and trends which allowed the Fund Management Solutions team to improve on its management process.

# Skills & Interests

### Programming:

- Python/Jupyter (Data Structures/Algorithms/Object-Oriented) | MATLAB | R | HTML5/CSS | TeX | Git | MS Office
- Data Science/Analysis (Python: Matplotlib, SciPy, NumPy, Scikit-Learn, Pandas, Koalas, TensorFlow | SQL)

### **Hobbies:**

• Dance (Bollywood/Hip-Hop) | Music (Singing/Beatboxing) | PC-Gaming | Chess | Fitness | Educational Resources (content-creator)

### Other:

Multi-lingual (English/Bengali/Hindi)