ADAM BOUSTANI

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EDUCATION

Imperial College London

October 2021 – October 2024

BSc Mathematics with Statistics for Finance (Lower Second Class Honours):

- Year 1: Analysis, Calculus, Linear Algebra, Computation, Probability & Statistics
- Year 2: Analysis, Linear Algebra & Numerical Analysis, Multivariable Calculus & Differential Equations, Network Science, Programming, Probability for Statistics, Statistical Modelling
- Year 3: Applied Probability, Statistical Inference, Game Theory, Mathematical Finance: Option Pricing, Business & Economics, Data Science, Scientific Computation, Statistical Learning

King's College London Maths School

September 2019 – June 2021

A Levels:

• Mathematics: A*

• Further Mathematics: A*

• Physics: A

• Computer Science: A (AS-level)

EXPERIENCE

Quantium Software Engineering Virtual Experience (Forage)

December 2024 - January 2025

- Developed an interactive Dash application that enabled the client to assess the impact of price changes on sales and profitability
- Designed an intuitive user interface to enhance client engagement and interaction with the application

PwC Power BI Virtual Experience (Forage)

December 2024 - January 2025

- Created Power BI dashboards that effectively visualised KPIs and met client needs with well-designed solutions
- Delivered valuable insights and actionable suggestions to engagement partners based on data analysis

Multi-Armed Bandits Group Research Project

May 2023 - June 2023

- Implemented multiple basic and advanced algorithms in Python solving the MAB problem
- Evaluated their effectiveness on different numbers of machines and different reward distributions
- Explored variations and applications of the MAB problem
- Produced a journal article using LaTeX and presented our research to experts

Fractals Individual Research Project

May 2022 - June 2022

- Researched the Minkowski curve fractal and its properties
- Calculated the Lebesgue covering, Similarity, and Hausdorff dimensions of the fractal
- Used Mathematica and 3D printing to construct the fractal

Galaxy Distances Group Research Project

November 2019 – June 2020

- Trained a machine learning algorithm to predict the distance to a galaxy from its colour and brightness
- Generated 3D plots of these correlations using Python
- Trained the model using least-squares regression and random forest
- Produced a journal article using LaTeX and presented our research to experts

EXTRA-CURRICULAR

- Centre for Young Musicians (2017 2020): Piano and Clarinet; Music production using Logic Pro X software; Improvisation, Composition, and Music Theory classes
- Attended the UNIQ Mathematics summer school run by the University of Oxford
- Mentor for younger BSc Mathematics students, helping them with module choices and efficient revision
- Data Analytics in Football using Python and R
- Play for the Imperial College London Football team
- Volunteer for the Children of Adam charity, providing aid and relief to underprivileged communities

KEY SKILLS

- Quantitative Skills: Data Analysis, Machine Learning, Web Development, Research
- Software Skills: Python, R, Javascript, React, Firebase, Vercel, Dash, Power BI, LaTeX, MS Office
- Languages: English, Polish
- Awards: UKMT Senior Maths Challenge (2x Gold)