

Mohammed Zain Mughal

Zainmughal77@outlook.com | +44 07810101334 | Acton, London

Education

Imperial College London, Physics MSci

Oct 2022 - Jun 2026

- Predicted First-Class Honors.
- Focus on mathematical and statistical methods alongside Quantum mechanics, emphasizing analytical problem-solving.
- Completed Imperial Horizons module in Accounting and Finance.
- Active member of Imperial Investment and Finance Society.

Bishopshalt School

Sep 2020 - Aug 2022

- Achieved 3 A*s at A-level in Maths, Physics, and Computer Science.

Rosedale College

Sep 2015 - Aug 2020

- Achieved 13 GCSEs with grades 9 to 8, including Maths and English, and 2 distinctions.

Professional Experience

Private Tutor

Jan 2022 - Present

- Delivered personalized tutoring in Physics, Maths, and Computer Science to over 20 students, improving their grades by an average of 2 grade levels.
- Developed custom lesson plans and learning materials tailored to individual student needs and weaknesses.

Cherry Hill Tuition

Jun 2023 - Aug 2023

- Conducted group tutoring sessions in Maths and Physics, fostering a collaborative learning environment.
- Assisted in curriculum development and unbiased student assessment.

Sam's Refrigeration Ltd

May 2019 - Mar 2020

- Provided IT consultancy services, resolving technical issues and ensuring system security.
- Implemented a NAS server system, increasing data retention by 32% through robust backup solutions.

Projects

Algorithmic Gyroscopic Stabilization Project

Apr 2023 - Jun 2023

- Designed and built a gyroscopic stabilization device using C++ and Python, achieving a 54% increase in stability.
- Conducted performance optimization through real-time data analysis, applying principles of Lagrangian mechanics.

Ascension Research Project

Dec 2020 - May 2021

- Led the development of a sensory device for data collection, calculating polluting stratospheric particulate concentrations to within $\pm 2.6\%$ of the approved NASA figures.
- Collaborated with multiple educational institutions for data analysis and panel presentations.

Personal Programming Projects

Jul 2019 - Present

- Developed a 1500-line educational game incorporating machine learning using Django and Flask, installed alongside tuition to improve student topic cohesion by 24%.
- Conducted a cosmology data analysis project, processing over 10 billion galaxy redshift data sets with 0.1% error, utilizing powerful Python statistical tools such as NumPy, TensorFlow, and PyTorch.
- Created a GitHub repository showcasing various machine learning projects, including a financial forecasting model predicting stock prices with an 85% accuracy rate using LSTM networks.
- Developed an automated trading bot leveraging Python and algorithmic trading strategies, resulting in a 20% return on investment over six months.
- Built a real-time data visualization tool for financial markets using Plotly and Dash, enhancing the decision-making process for traders resulting in a personal 13% uptick in profitable trades.

Skills

Languages: English (fluent), Urdu/Punjabi/Hindi (conversational)

Technical Skills: Python (advanced), HTML, Matlab, PHP, C/C++, VBA, Machine Learning Implementations, Git, Financial Modeling

Soft Skills: Communication, Critical Thinking, Problem-Solving, Collaboration, Leadership, Time Management

Activities and Interests

Sports: Gold medalist in Borough Badminton Championships, School Basketball Team captain

Hobbies: National RC Car Racing Champion (multiple under-18 titles), Gym (addicted), Trader (long-term), Chess Enthusiast, Amateur Photographer, Volunteering for local community services