Mohammed Zain Mughal

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Acton, London | LinkedIn | Portfolio

Education

Imperial College London, Physics MSci   **Oct 2022 - Jun 2026**
- Predicted First-Class Honors.
- In-depth study of differential equations (ODEs, PDEs), probability distributions, hypothesis testing, statistical mechanics, regression analysis, and multivariate statistical methods.
- 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 Distincions.
- Valedictorian, recognized for academic excellence and leadership qualities.

Professional Experience

Private Tutor   **Jan 2022 - Present**
- Developed customized tutoring plans using diagnostic assessments, interactive problem-solving techniques, and regular progress reviews resulting in a 2-grade improvement for 20+ students.
- Designed and implemented tailored lesson plans utilizing adaptive learning technologies to meet individual student needs, achieving a 95% satisfaction rate through positive student and gaurdian feedback reports.

Cherry Hill Tuition   **Jun 2023 - Aug 2023**
- Facilitated group tutoring sessions in Maths and Physics, utilizing discussions, peer assessments, and collaborative projects to enhance student engagement by 30% (surveyed), encouraging peer-to-peer learning and critical thinking.
- Contributed to curriculum development and student assessment by implementing collaborative projects and unbiased evaluations, resulting in a 15% improvement in overall performance.

Sam's Refrigeration Ltd   **May 2019 - Mar 2020**
- Delivered IT consultancy by diagnosing and resolving technical issues, implementing security measures like firewall configurations, and encryption protocols for data protection. Conducted system audits to ensure compliance with security standards and best practices.
- Developed and installed a NAS server system with advanced backup technologies, improving data retention by 32% through robust backup solutions. Provided staff training on data and security protocols to enhance overall security.

Projects (see Portfolio)

MarketSeer: Financial Forecasting Application   **Mar 2024 - Present**
- Developed using React (front-end) and Flask (back-end), integrating TensorFlow to run predictive models such as LSTM and ARIMA for data analysis. Achieved a 64% accuracy rate in financial forecasts, aiming to improve to 85%.
- Designed a dashboard displaying predictive insights, interactive data visualizations using D3.js, and simulation tools for risk assessment. Enhanced user decision-making capabilities and experience through intuitive design and functionality.

Portfolio Risk Management System   **Apr 2024 - Present**
- Developed a Portfolio Risk Management System using C++ to calculate risk assessment metrics like VaR and CVaR. Analyzed historical data to quantify financial risk, predicting a 20% improvement in risk management effectiveness.
- Created detailed risk reports and dashboards using Tableau to visualize risk metrics and trends. Aided in strategic decision-making and provided valuable current insights for portfolio management.

Advanced Gyroscopic Stabilization Systems   **Apr 2023 - Jun 2023**
- Developed a stabilization device using advanced control systems such as PID controllers and real-time data analytics, including Kalman filters. Achieved a 54% increase in stability and performance through precise control and data analysis.
- Built a prototype using Arduino for hardware control and Python for analytical processing, demonstrating significant stability improvements. Enhanced device performance through meticulous control and data-driven adjustments.

Skills

Technical Skills: Python (advanced), React, Flask, TensorFlow, C++, HTML, Matlab, PHP, VBA, Machine Learning Implementations, Git, Financial Modeling, Firewall Configurations, Encryption Protocols, Monte Carlo Simulations, Arduino.

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

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

Activities and Interests

Networking Events:
- SEO London, Spring into Insurance Event, learning about risk management and networking with professionals.
- Diverse AI discussing neural networks, machine learning, and its uses in business and cloud services.

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.