Shreyas Satish

+447342675100 | satishshreyas3@gmail.com | LinkedIn | GitHub | Website

EDUCATION

MEng Computational Biomedical Engineering, Imperial College London ***Sep 2023 – Jun 2027***

- Predicted 1st Class Honours (1st Class achieved in Years 1 & 2). Specialising in computational and software-driven engineering, with focus on numerical methods, signal processing, and optimisation.
- Key Modules: Programming (81%), Mathematics (80%), Electronics (86%), Signal Processing (79%).
- 2nd Year Design Project: Designed an embedded-sensor physiotherapy device with a Unity-based rehabilitation game, generating real-time feedback pipelines and structured time-series datasets.
- Active member of Programming, Computational Biology, Engineering, and Algorithmic Trading societies.

A-Levels & GCSE, Royal Grammar School, High Wycombe ***Sep 2017 – Aug 2023***

- A-Levels: A*, A, A in Mathematics, Further Mathematics, Physics, with Extended Project in Nanotechnology.
- GCSE: 4 x Level 9s (including Mathematics and English Language/Literature), 6 x Level 8s, 1 x Level 7.

WORK EXPERIENCE

Balyasny Asset Management – Data Engineering Challenge ***Nov 2025***

- Engineered a high-performance Python limit order book, implementing price–time priority matching and real-time execution of 1,000 orders/sec with millisecond-level latency, showing algorithm efficiency.
- Applied optimisation techniques to in-memory data structures and matching logic, demonstrating strong systems thinking and performance awareness for production-grade engineering standards and deployment reliability.

Data Science Intern, AI in Medical Imaging, A Yang Lab, Imperial College London ***Oct 2025 - Present***

- Optimised deep learning training pipelines (nnU-Net) for large-scale datasets, improving model F1 score by 10% through data preprocessing, systematic model evaluation, validation logic, and error analysis.
- Automated dataset cleaning for 50+ CT scans, improving reproducibility, data traceability and quality reassurance.

Data Analytics Summer Internship, St Bartholomew's Hospital ***Jun - Sep 2025***

- Developed scalable Python and SQL-based data pipelines for medical datasets, applying statistical modelling, feature extraction, and visualisation to uncover patterns and reduce manual intervention by 15%.
- Communicated results to non-technical medical stakeholders, translating complex data into actionable insights.
- Actively contributed to research and evaluation, resulting in 3 accepted international conference abstracts.

Date Science Work Experience, Department of Nuclear Medicine, Guildford Hospital ***Aug 2022***

- Supported live imaging systems by assisting with data handling and issue diagnosis to maintain reliable diagnostic workflows in time-critical settings under data integrity and governance standards.

EXTRACURRICULAR PROJECTS

Stock Analyser - Quantitative Market Forecasting System ***Nov 2025***

- Built a modular Python object-oriented forecasting tool for stock price analysis using ARIMA models and ADF-Fuller tests, achieving 1.5% SMAPE and <7% error on test data. This supported data-driven decision making.
- Added customisable stock and date selection features, enhancing user value by including personalised, financial insight-driven forecasts for various prices.

Java Cell-Growth Simulator - Biological Systems Model ***Nov 2025***

- Implemented an OOP-based biological model with structured state management, enabling deterministic execution and extensible computational modelling.

Amazon University Engagement Programme, Meal Planning App, Technical Lead ***Jun – Oct 2025***

- Collaborated in a multi-disciplinary team to develop a Flutter-based app with Firebase authentication, SQL database integration, Figma UI/UX design, and API connectivity to support scalable user workflows.

Fractal Generator - Computational Visualisation Tool ***Jun 2025***

- Programmed fractal visualisation algorithms (Mandelbrot, Julia, Newton Sets) in Python using vectorisation to accelerate computation by 10x, along with an interactive UI to explore complex mathematical systems.

Environmental Data Analysis - Large-Scale Data Analysis & Insight Generation ***Jul 2025***

- Conducted data cleaning, statistical modelling, and visualisation on real-world datasets (WHO, National Parks Service) using Pandas, Matplotlib and Seaborn to extract trends supporting evidence-based sustainability insights.

SKILLS

Technical Skills: Python (Pandas, NumPy, SciPy, Matplotlib, Seaborn, Tkinter), MATLAB, C, C#, Java, SQL, Unity, Flutter, Firebase, Figma, Version Control (Git/GitHub), Excel, PowerPoint, Word, Unit Testing, Data Structures, AI & Machine Learning, Deep Learning (CNNs, Segmentation Models), Statistical Modelling, Model Evaluation & Metrics, Algorithm Design and Optimisation, Object-Oriented Programming.
Certifications: Pursuing *Data Scientist: Machine Learning* Certificate (Codecademy).
Soft Skills: Teamwork, Communication, Public Speaking, Adaptability, Attention to Detail, Problem Solving, Resilience.
Language Skills: English (Native), Kannada (Intermediate), French (Beginner).
Interests: Emerging Technology, Bioinformatics, Sustainability, Chess, Volunteering, Badminton, Guitar.