Anish Mariathasan

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EDUCATION AND QUALIFICATIONS

Biomedical Engineering MEng – Imperial College London　　　　　　　**October 2022 – June 2026**

- Awarded a Bioengineering Academic Scholarship, scored 96% (unmoderated) in Advanced Programming Module, inc. Image Processing

A Levels (4A* A) – Bishop's Stortford College　　　　　　　　　　　**2010 – 2022**

- Maths, Further Maths, Physics, Extended Project Qualification (EPQ), Chemistry
- Academic and Music Scholarships
- Winner of the Physics Prize (2021), Director of Music, House Debating, Model United Nations, Amnesty International

ABRSM Grade 8 Piano (Merit)　　　　　　　　　　　　　　　　**December 2019**

ABRSM Grade 8 Classical Guitar (Distinction)　　　　　　　　　　**December 2019**

- Winner of: Advanced Classical Strings (2019)

ABRSM Grade 5 Music Theory (Merit)　　　　　　　　　　　　　　**March 2018**

Hanyu Shuiping Kaoshi (HSK) Level II (90.5%)　　　　　　　　　　**December 2020**

EMPLOYMENT AND WORK EXPERIENCE

Software Engineering Internship – Oxford Nanopore Technologies　　　**July 2024 – September 2024**

Oxford Nanopore Technologies: A multi-billion-dollar company producing DNA/RNA sequencing machines

- Developed in C++ on Core Software, including implementing critical change features, fixing bugs and writing unit tests.
- Exposed to PyTorch in the ML team to base-call, developing my ML skills.
- Worked on a Python project 'Moonwall', where I built an automated data aggregation and visualisation/analysis tool to substantially enhance the team's efficiency. Refined and presented the tool based on continuous stakeholder feedback.

Firmware Engineer Internship – Thermetrix Ltd.　　　　　　　　　**August 2023 – September 2023**

Thermetrix: A company using thermography to create medical devices to scan for medical issues in feet

- Assisted in the development process of a new version of a medical device which images feet to detect medical issues.
- Developed a varied hardware system and assisted developing a new software system in C, using the Raspberry Pico microcontroller platform.

Kickstart '23 Cohort　　　　　　　　　　　　　　　　　　**November 2022 – April 2023**

Kickstart: An entrepreneurial program that helps founders build startups through mentorship and investor exposure

- Applied and was accepted onto the Kickstart '23 Cohort Emerge Programme. Grew and built a socio-altruistic startup with 2 co-founders, and pitched the idea to a team of talent investors and entrepreneurs.

RESEARCH/PROJECTS

Improving Stem Cell Viability in Syringe Injection　　　　　　　　**October 2024 – present**

- Research lead of project modelling fluid dynamics in stem cells, designing and fabricating microfluidic chambers
- Academic research into ML tools for cell imaging, microfluidic chamber designs and fluid dynamic modelling (MATLAB)

Therakey　　　　　　　　　　　　　　　　　　　　　　**October 2023 – June 2024**

- Practical Research project co-lead of arthritis rehabilitation device, designing hardware circuits and the software system.
- Based on the Raspberry Pico microcontroller, I wrote the firmware in C.

PPE Redistribution App　　　　　　　　　　　　　　　　　　**2020**

- Wrote a Java mobile app integrated with Google Firebase Realtime Database, enabling users to advertise surplus PPE equipment for redistribution to medical staff and individuals in need during the COVID-19 pandemic.

Personal Website　　　　　　　　　　　　　　　　　　　　**2018 – 2020**

- Developed my website using Python and the Django framework for the back-end, and HTML/CSS for the front-end.

App Development　　　　　　　　　　　　　　　　　　　　**2017 – 2019**

- Developed and sold mobile games on the Google Play Store and Microsoft Store. They were written in C# using the Unity game engine, under the brand name of Squashed Orange.

Extended Project Qualification (A*)　　　　　　　　　　　　　　**2021**

- Demonstrated academic writing and data analysis skills by composing a dissertation in the form of an academic research paper titled "Autonomous Surgical Robotics: An Overview of the Challenges and Future Areas of Development."

EXTRACURRICULAR ACTIVITIES AND LEADERSHIP

Sponsorship Lead – Imperial College London MedTech Society　　　　**August 2023 – August 2024**

Vice President – Imperial College London Sri Lankan Society　　　　　**March 2023 – February 2024**

Secretary – Imperial Medicals Cricket Club (IMCC)　　　　　　　　**August 2023 – August 2024**