Josh Jennings

Electrical Engineering Student
3F Kingwood Road, London, SW6 6SW
+44 771 965 0921 | jlj16@ic.ac.uk | joshjennings.co.uk | joshjennings98

Education

Imperial College London — *South Kensington, London*
MEng Electrical and Electronic Engineering — *Oct 2016 - Jul 2020*

- **Expected Result:** Upper Second Class Honours.

Boston Spa School — *Boston Spa, Leeds*
Secondary School and Sixth Form — *Sept 2009 - Jun 2016*

- **A Levels:** Mathematics (A*), Further Mathematics (A), Physics (A)
- **GCSE:** 10 Grade A* to C, including 4 A*

Professional Experience

ICL Digital Learning Hub — *South Kensington, London*
JavaScript Programmer — *Jun 2019 - Aug 2019*

- Developed interactive JavaScript visualisations for Imperial College's Master's degree course in Machine Learning.
- Liaised with lecturers and other academics to make sure visualisations were of an excellent standard.

Department of Chemistry, Imperial College London — *South Kensington, London*
Lead Engineer and Programmer — *Jan 2018 – Sep 2018*

- Worked for the Department of Chemistry in an interdisciplinary group to develop a smartphone based biosensor for use with Lateral Flow Assays to detect Vancomycin concentration in blood plasma.
- Negotiated with prospective sponsors for project funding, represented Imperial College at the international SensUs 2018 competition (3rd in innovation), pitched the biosensor to professionals, and promoted the biosensor to the public.

Projects

(Full details and portfolio available at joshjennings.co.uk)

- **Event Driven SNNs (ongoing):** Designing software that generates spiking neural networks for Partially-Ordered Event-Triggered Systems. Developing more efficient algorithms and comparing POETS performance to ordinary computers.
- **Intermittent Claudication Health App:** Developed an application using JavaScript to improve quality of life for patients suffering from Intermittent Claudication. Won first prize for the best third year EEE group project.
- **VisUAL2 GNU Assembler exporter:** Added features to the VisUAL2 ARM emulator including giving it the ability to export UAL ARM code as GNU ARM Assembler files. Implemented using F# for the back-end and JavaScript for the front-end.
- **F# Neural Network Library:** Created a small library for creating neural networks designed for and built with F#.
- **Smartphone Biosensor:** Built a smartphone application for Android that used colour intensity of lines on Lateral Flow Assays as well as machine learning to calculate Vancomycin concentration in blood plasma.

Technical Skills

Programming C++, Python (including Keras), F#, ARM Assembly, JavaScript
Miscellaneous Linux, Microsoft Office, LaTeX, Arduino Development, PCB Design, Bash Scripting

Other Interests

Space Society Designed software and hardware to communicate with CubeSats; have attended many guest lectures.
Miscellaneous Keen hiker; have organised trips across Europe.