

Iasonas Papadopoulos

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Education

Imperial College London

Sep. 2018 - 2022

MENG IN ELECTRICAL AND ELECTRONIC ENGINEERING - **FIRST CLASS HONOURS (72.07%)**

- Relevant Modules: Communication Networks (89%), Computer Vision (83%), Mathematics (83%), Artificial Intelligence (81%), Computer Architecture (78%), Machine Learning (77%), Optimisation (75%), Algorithms & Data Structures (74%), High Level Programming (73%), Software Engineering (70%)

Geitonas School International Baccalaureate

Sep. 2016 - 2018

- Overall grade: **40/45** (Top 7% Worldwide), Grades: Physics HL 7/7, Mathematics HL 6/7, Computer Science SL 6/7, Economics SL 6/7

Experience

Garrison Technology

Sep. 2022 - Present

SOFTWARE ENGINEER

- Implemented **AWS**-powered features for a web portal leveraging **Python RestAPI**, optimizing functionality, UX and efficiency.
- Developed end-to-end **browser extension** in **Javascript** to seamlessly redirect customers to our secure platform, minimizing the risk of browsing.
- Redesigned and coded an **AWS**-deployed DNS filtering **C++ server**, leveraging **thread utilization**, resulting in a 75% decrease in CPU usage.
- Automated operations using the **GitLab** CI pipelines that perform caching, unit-testing, Docker image build.

Qualcomm

Apr. - Oct. 2021

FULL-STACK SOFTWARE ENGINEER

- Implemented a **Python**-based **GUI app** for data entry on the **Bluetooth SIG database** that automatically detects human errors.
- Extended an internal pre-compiler in **C++**, that detects LaTeX mistakes 100 times faster than XeLaTeX compiler.
- Debugged a tool that automate SVG sequence message charts generation in **Python**, used in the Bluetooth Specification documents.

ISSIE

Jan. - Apr. 2021

FULL-STACK SOFTWARE ENGINEER

- Used **F#** to develop a replacement for the Draw2D JavaScript library in ISSIE, responsible for drawing logic circuits.
- Improved my collaboration and organisation skills by getting exposed to **modular programming** using version control (**Git**).
- Reduced rendering complexity by using effective **data structures** and rendering techniques **increasing efficiency** by 30%.

Publications

Polar Codes for Module-LWE Public Key Encryption: The Case of Kyber

Jan. 2023

POST QUANTUM ENCRYPTION USING PYTHON

- Proved that the **security** of the **Post-Quantum** standard for **Public-Key Encryption**, can be increased by **54.4%** with the introduction of Polar Codes.
- Developed open source **Python** code that implements the enhanced security scheme by applying Polar Codes on **Kyber** using **NumPy**.

Projects

Textaille

Jan. - Mar.2020

GIVING ACCESS TO VISUALLY IMPAIRED PEOPLE TO PRINTED TEXT

- Designed, coded, and prototyped a device that converts printed text to Braille on a refreshable 3D display using **Raspberry Pi** and **Arduino**.
- Applied Optical Character Recognition in **Python**, and established low level communication between the two devices to transfer data in streams.

128-bit Multiplier

Nov. - Dec 2019

ASSEMBLY LEVEL SYSTEM TO PERFORM LARGE INTEGER MULTIPLICATION

- Applied algorithms in **ARM Assembly** using 32-bit registers, reducing the number of cycles needed to perform 128-bit multiplication by 25%.
- Enhanced my programming skills by applying **low level programming** techniques to improve efficiency of a system.

Mastermind

Mar. - Apr. 2019

ALGORITHMIC SOLUTION TO THE FAMOUS BOARD GAME

- Developed, applied, and analysed **algorithms** (Minimax, Genetic, probabilistic) in **C++**, to optimally play the board game "Mastermind".
- Expanded my knowledge by analysing comparatively the performance of these algorithms using extensive testing.

Skills

Programming Python, C++, Javascript, F#, ARM Assembly, MATLAB, Rust, Go, LaTeX

Other Git, AWS, RestAPI, OpenAPI, Docker, CI pipelines, Linux

Visa Sponsorship I do **not** require a visa sponsorship to work in the UK