Joon-Ho Son

MEng Computing at Imperial College London

+447925425326 — sonjoonh@gmail.com — sonj.me

EDUCATION

Imperial College London September 2017 - July 2021

- MEng (Hons) Computing
- Current average: 1st class

Hills Road Sixth Form College September 2015 - June 2017

- A-Levels: Maths (A*) Chemistry (A*) Further Maths (A) Physics (A) EPQ (A*)

EXPERIENCE

Google STEP Engineering Intern July 2019 - September 2019

- Designed and implemented a resource optimisation tool for a distributed data synchronisation service.
- 52% projected RAM utilisation savings in production pipelines by applying computed optimal resource footprints.
- Built with Go.

NOTABLE PROJECTS

Mobilise

- Developed a volunteer coordination web application for *City Harvest London*, a charity aiming to end food waste.
- Awarded the *IBM 2nd Year Group Project Prize* and backed for further development by *Charity Insights*.
- Built with JavaScript (React, Node) and PostgreSQL.

WACC Compiler

- Worked in a small team to develop a compiler for the WACC language from scratch.
- Implementation included advanced class functionality, control flow analysis, and automatic reference counting.
- Built with Kotlin, Java, and ARM11 assembly language.

PintOS

- Extended an operating system framework to support advanced features.
- Acted as group leader to delegate tasks and manage sub-teams.
- Responsible for implementing effective priority scheduling, user programs and virtual memory.
- Built with C and x86 assembly language.

Poisonous Mushroom Classification

- Performed an in-depth exploratory data analysis on the characteristics of over 8000 poisonous and edible mushrooms.
- Trained a classifier to predict the edibility of a mushroom based on a selected subset of these features.
- Approach emphasised effective choice of metrics and hyperparameters in order to tackle class imbalance.
- Built with Python (Numpy, Scikit-learn, Pandas).

Flask Wii

- Created and deployed an experimental web application that allows the user to turn their smartphone into a 3D controller.
- Utilised WebSockets to enable realtime user interaction.
- Built with Python (Flask) and JavaScript.

ACHIEVEMENTS

Palantir Data Ethics Case Competition 1st Place

- Coordinated a multi-disciplinary team in order to submit proposal detailing the technical and ethical challenges surrounding large-scale data collection.
- Selected out of teams worldwide to present our proposal at the *Amsterdam Privacy Conference 2018*.

LANGUAGES & TECHNOLOGIES

Proficient with: Java, Python, Go, C, Kotlin, JavaScript, Git, Linux/Unix.

Comfortable with: Haskell, C++, SQL, LaTeX, Tensorflow, Scikit-learn.

Exposed to: Ruby, PHP, Docker.