Joon-Ho Son
MEng Computing at Imperial College London

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EDUCATION

Imperial College London   Sep 2017 - Jul 2021
- MEng (Hons) Computing
- Second year: 80% (1st class); first year: 72% (1st class)
- 90% Year 2 Computing Laboratory; 90% Year 2 Group Project

Hills Road Sixth Form College   Sep 2015 - Jun 2017
- A-Levels: Maths (A*) Chemistry (A*) Further Maths (A) Physics (A) EPQ (A*)

EXPERIENCE

Google, STEP Engineering Intern   Jul 2019 - Sep 2019
- Designed and implemented a resource optimisation tool for a distributed data synchronisation service using **Go** and **protocol buffers**.
- 52% projected RAM utilisation savings in production pipelines by applying computed optimal resource footprints.
- Increased productivity of thousands of engineers by integrating with an internal incident response management tool to reduce toil involved with diagnosing underprovisioned pipelines.

Wiser, Tech Academy   Sep 2018 - Sep 2019
- Connected clients looking to hire technology graduates directly with students on campus.

PROJECTS

Automated Image Analysis for Gene Therapy sonj.me/cells   Oct 2019 - Ongoing
- Working in collaboration with *Cambridge University Neuroscience* to automate analysis of neurological tissue to identify the effectiveness of gene therapy treatments.
- Developed a cell segmentation algorithm that performs 10% more accurately compared to previous methods.
- Leading a team of six to apply agile methods and delegate prioritised tasks to sub-teams.

Mobilise sonj.me/mobilise   May 2019 - Sep 2019
- 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*.
- Used full-stack **JavaScript** to build a user-friendly web frontend (**React**) and powerful backend (**Node**, **PostgreSQL**) hosted on **AWS**.

WACC Compiler   Jan 2019 - Mar 2019
- Worked in a small team to engineer a compiler for the WACC language in **Kotlin** from scratch.
- Implementation included advanced class functionality, control flow analysis, and automatic reference counting.

Pintos Operating System   Oct 2018 - Dec 2018
- Team lead in a group project to extend an operating system framework to support advanced features.
- Responsible for implementing effective priority scheduling, user programs, and virtual memory in **C**.

Poisonous Mushroom Classification sonj.me/mushrooms   Aug 2018 - Sep 2018
- Performed an in-depth exploratory data analysis on the feature set of over 8000 poisonous and edible mushrooms.
- Trained a classifier in **Python** 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.

ACHIEVEMENTS

Palantir Data Ethics Case Competition (1st Place) sonj.me/data-ethics
- Coordinated a multi-disciplinary team in order to present a proposal detailing the technical and ethical challenges surrounding large-scale data collection at the *Amsterdam Privacy Conference 2018*.

SKILLS & INTERESTS

Languages: Proficient with Go, Python, Kotlin; familiar with Java, C, JavaScript; previously used Haskell, C++, TypeScript, SQL.

Technologies: Experienced with Git; familiar with Linux/Unix, LaTeX, CI/CD (Travis, Circle, GitLab); exposed to Docker, AWS, Perforce.

Extracurricular: Imperial College Taekwondo Vice-president '19/20, Secretary '18/19.