

KELVIN ZHANG

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EDUCATION

Imperial College London

London, UK

MEng Computing, 1:1

2017 - 2021

- Distinguished project (90% in MEng thesis) and ARM Project Prize for best computer systems project
- Attained awards for highest **Haskell** final exam mark in 1st Year and best **C** group project in 2nd Year

Whitgift School

London, UK

Secondary School

2009 - 2017

- 4 A*s at A Level (Computer Science, Maths, Further Maths and Physics); 10 A*s and 1A at GCSE

WORK EXPERIENCE

Google

London, UK

Software Engineer, Google Health

Oct 2021 - Current

- Re-designed and rebuilt legacy, error-prone **Python**-based binary release automation for Google for Clinicians' core data ingest pipeline used by dozens of engineers across multiple teams, reducing manual release work by 5 SWE days per month and reducing code to reach production by 5 calendar days
- Proficiently handled on-call incidents for a multi-stage, distributed clinical data pipeline involving batch (MapReduce-like) and streamed (Spanner) processing with **Python** and **C++** codebases
- Led DEI engagements, including university talks and a full-day local school visit for dozens of students

Google

London, UK

Software Engineering Intern, Google Search

May 2020 - Sep 2020

- Designed and implemented an end-to-end MVP (**Java/TypeScript**) for a novel, media-first experience for users in India, aligning with multiple teams to stretch the capabilities of Search infrastructure

Google DeepMind

London, UK

Software Engineering Intern, DeepMind Health

Jun 2019 - Sep 2019

- Designed and implemented patient record grouping using **Go** with data quality remediation on error-prone data, surfacing higher quality, contextual information for clinicians using the Streams app

Bloomberg

London, UK

Software Engineering Intern, Data Technologies

Jul 2018 - Sep 2018

- Designed and implemented metric collection for an open source Kubernetes chaos engineering tool (1.8k+ stars) using **Python**, providing actionable insights used to scale an internal platform

SELECTED INDEPENDENT PROJECTS

Kubedim <https://github.com/kcz17>

2021 - 2022

Master's thesis applying control theory and profiling techniques to create a reverse proxy using **Go** for Kubernetes clusters that uses self-adaptive load shedding. Built a load testing bench using **TypeScript** to show 22% increase in high load availability over prior work. Presented in office hours with Grafana Labs.

Timetable Pusher <https://github.com/kz/timetable-pusher-pebble>

2015 - 2018

A Pebble smartwatch app allowing users to sync their school class schedules with their Timeline (a calendar). Consisted of a Pebble (**C** SDK) app and PHP/Laravel API. 2000 users at peak.

swanntools <https://github.com/kz/swanntools>

2017 - 2017

Reverse engineered network layer of a household IP security camera. Found vulnerabilities by inspecting packets, wrote detection scripts and built a H.264 streaming service in **Go** to abstract the exposed endpoint.

VOLUNTEERING AND LEADERSHIP

Trustee, Spark! (Hounslow Education Business Partnership)

August 2021 - Present

- Key contributor to improving governance of a grant-funded charity supporting young people's employment outcomes, providing fresh scrutiny during its rapid growth from £100k ARR to £500k+

Student Trustee, Imperial College Union

Jul 2020 - August 2021

- Appointed student trustee on Board of Trustees of a £10mm revenue charity with 17,000 members

President, Imperial College Department of Computing Society

Aug 2018 - Jul 2020

- Led a committee of 16 and engaged stakeholders to make a lasting impact on the society's 1.4k members
- Led fundraising and oversaw subsequent spending of £150k in sponsorship funds from 25 sponsors
- Organised IC Hack, the UK's largest student-run hackathon, with a £60k budget and 450 attendees

SKILLS & INTERESTS

Languages – English (native speaker), Mandarin Chinese (elementary)

Extracurricular – Taekwondo student; amateur pianist (ABRSM Grade 7); fives (ball game) player