

KELVIN ZHANG

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WORK EXPERIENCE

Monzo

Backend Engineer, Platform

London, UK

Jul 2023 - Current

- Re-architecting systems that have organically grown beyond sustainable levels to help product teams iterate faster and unblock scalability to the next millions of customers
- Designed and implemented data quality remediation tools (**Go**), and drove alignment between product and compliance teams, to unblock a critical deadline to generate accurate fees data for all 8M users

Google

Software Engineer (L4), Search (Product) and Health (Platform)

London, UK

Oct 2021 - Jul 2023

- Re-designed and rebuilt legacy, error-prone release automation (**Python**) and integration testing for Google for Clinicians' data ingest pipeline, reducing code time-to-production by 5 days and freeing up full-time-equivalent of 1 SWE
- 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
- Promoted to L4 in one year, placing at top 2% of cohort
- Led launch of a Discover feed feature on Android, analysing latency metrics in ramp-up to O(1M) users
- Re-wrote significant part of Google's intern hiring tool (**Python/Java**) to support candidates being associated with more than one recruiter, automating recruiter work for 2% of all global candidates
- Created and led a **human-centred design** workshop for 15 students, as part of wider DEI work

Google

Software Engineering Intern, Google Search

London, UK

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

Software Engineering Intern, DeepMind Health

London, UK

Jun 2019 - Sep 2019

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

Bloomberg

Software Engineering Intern, Data Technologies

London, UK

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

EDUCATION

Imperial College London

MEng Computing, 1:1

London, UK

2017 - 2021

- Distinguished project (90% in MEng thesis) and ARM Project Prize for best computer systems project

SELECTED INDEPENDENT PROJECTS

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

2021 - 2022

Master's thesis applying control theory and profiling techniques to create a **single-agent system** using **Go** for Kubernetes clusters for self-adaptive load shedding under high load. Built a load testing bench using TypeScript to show 22% improvement in metrics over prior work. Presented in office hours with Grafana.

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 on-watch calendar.

Consisted of a Pebble (**C** SDK) app, PHP/Laravel API and **PostgreSQL** database. 2000 users at peak.

VOLUNTEERING AND LEADERSHIP

Trustee, Spark! (Hounslow Education Business Partnership)

Aug 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 £700k+

President, Imperial College Department of Computing Society

Aug 2018 - Jul 2020

- 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

Selected Technical Skills – Experienced with Python (**code style reviewer** at Google), Go, and Java. Familiar with C++, TypeScript, and Dart. Familiar with distributed systems and microservices-based architecture (hosted Distributed Data track at O'Reilly Velocity '18 Conference).