

KELVIN ZHANG

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EDUCATION

Imperial College London

London, UK

MEng Computing

2017 - 2021

- Second year: 77.4% (1st class); first year: 74.6% overall (1st class), 93% programming
- 98% in C group project: built an ARM11 emulator/assembler and extended it with a debugger
- Awarded Haskell prize for highest attainment in final Haskell test and best overall ARM project prize

Whitgift School

London, UK

Secondary School

2009 - 2017

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

WORK EXPERIENCE

Google DeepMind

London, UK

Software Engineering Intern, DeepMind Health

Jun 2019 - Sep 2019

- Implemented a new feature for the Streams app using Go and gRPC to improve contextual information given to clinicians when viewing patients' health records, improving quality of care
- Worked with clinicians and colleagues across disciplines to build a proof-of-concept UI for a proposed feature using Flutter and Dart, used to drive product decisions for a future cross-team project

Bloomberg

London, UK

Software Engineering Intern, Data Technologies

Jul 2018 - Sep 2018

- Worked on PowerfulSeal, an open source chaos engineering tool (1,000+ stars on GitHub) used to test the resilience of Kubernetes clusters behind an internal microservices platform
- Implemented metric collection using Python (Prometheus) and developed an internal dashboard (Grafana) to improve visibility of faults introduced by PowerfulSeal
- Built a web interface using Python and JavaScript (Vue.js + Flask) for configuring and monitoring PowerfulSeal, reducing errors in configuration and improving usability of the platform

Artificial Labs

London, UK

Software Development Intern

Jul 2017 - Sep 2017

- Implemented parsing and synchronization of live, unsorted sports player data (XML) from a legacy data source into a PostgreSQL database, focusing on the integrity and quality of data
- Implemented a role-based permissions system for an insurance policy management platform

PROJECTS

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

Reverse engineered and built capture tools for the Swann DVR4-1200 (a CCTV digital video recorder). Involved finding vulnerabilities by inspecting network packets, writing detection scripts and building a software abstraction layer (using Go) to replace the DVR's client interface. Kept a research journal.

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

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

SKILLS & INTERESTS

Languages/Frameworks – Proficient in PHP (inc. Laravel); familiar with Go, Java (inc. Android SDK), Python (inc. Flask), JavaScript (inc. Vue.js), SQL; previously used C, Haskell.

Technologies – Experienced with Git; familiar with Unix/Linux, continuous integration (TravisCI); exposed to Kubernetes, Docker, Google Cloud Platform, AWS (EC2, S3), Webpack.

Extracurricular – President '19/20, Imperial College Department of Computing Society with 1,400 members, managing a sixteen-strong committee and a £150k budget; lead organiser, IC Hack, the UK's largest student-run hackathon; fives (ball game) player.

ACHIEVEMENTS

IET Diamond Jubilee Scholar – Awarded grant for commitment to software engineering Oct 2017

European Cyber Security Challenge Competitor – Competed on the UK team against other European countries in attack/defence scenarios and capture the flag challenges Nov 2016

Cambridge Bio-Hackathon (1st Place) – Won first place prize for building a synthetic biology web application providing an intuitive interface to interact with cloud laboratories Jun 2016