Thomas Bower

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EDUCATION

Imperial College London – London, UK — 2015 – 2019 (expected)

- Master of Engineering (MEng) in Computing
- Finished 1st and 2nd year with first-class honours

Birkdale School – Sheffield, UK — 2008 – 2015

- A-Levels – 6 A*–A; GCSEs – 11 A*–A

PROFESSIONAL EXPERIENCE

Internet Services Developer (Netcraft) – Bath, UK — 06/2017 – 09/2017

- Developed and improved internal malware classification software, using Perl and JavaScript (ES6, AngularJS)
- Sped up API endpoints by up to 99% by restructuring database, and rewriting inefficient queries and functions
- Other responsibilities included prospecting of new clients, supporting DevOps work, creating C and Shell scripts to analyse high volumes of client data, and organising internal events

Lead Web Developer (Talentwire) – Santa Barbara, CA, USA — 08/2011 – 09/2012

- Developed data visualisation JavaScript modules to present employment data, using algorithms like bin packing
- Architected database, produced a suitable RESTful API, and integrated into frontend user interface using AJAX
- Produced fully responsive, mobile first user interface with HAML, CSS3 and JavaScript (jQuery)

Freelance Developer – Sheffield, UK — 07/2011 – 07/2015

- Redeveloped and created web presences for several local businesses (local tutoring business, real estate agent etc.) using HTML, CSS, JavaScript, and backends supported by PHP and CouchCMS

PROJECTS

OnBoard.fun bwr.fyi/onboard — 06/2017

- Multi-user board game platform with game creation tools and collaborative gameplay, supporting any kind of game with pieces, a board, dice, and cards, as part of a university group project
- Developed backend with Ruby on Rails for user logic, and game server in Node.js to share state between clients like chat and piece positions, with reactive frontend using Vue.js, for interactive game creation and playing

Chip-8 Emulator bwr.fyi/chip8 — 04/2017

- Implemented a Chip-8 interpreter in C, using SDL2 library for graphics
- Able to interpret, run, and play 8-bit ROMs such as Tetris and Space Invaders

SuPi Mario Bros. — 05/2016

- Programmed an assembler and emulator for the Raspberry Pi's ARM11 processor in C, and recreated NES 'Super Mario Bros.' first level as an extension project using SDL and C

HackChat bwr.fyi/hackchat — 02/2016

- Chat application with integrated multiplayer games as part of a 24-hour hackathon project
- Used Socket.io and Node.js to handle client/server communication, and developed several games using JavaScript and HTML5 Canvas (Breakout, Tetris) to be played on the application

TECHNICAL SKILLS

Languages: (*Good*) Java, JavaScript, SQL, HTML, CSS (*Familiar*) Haskell, C, PHP **Tools:** Vim, Git, Travis CI

OTHER ACHIEVEMENTS & QUALIFICATIONS

Imperial College Computing Society (DoCSoc) Vice President — 2017 – 2018

- Raised tens of thousands in society sponsorship, liaised with sponsors and potential corporate partners, organised social and industrial events on campus, oversaw other committee members, delivered web development lecture to 200 students

Microsoft Student Partner — 2016 – 2018

- Organised highly successful Hololens talk at Imperial College, and acted as Microsoft contact for IC Hack 17
- Mastered Microsoft technologies and passed on skills to others
- Selected as a top Imperial MSP in 2017 and invited to Build conference in Seattle

Imperial College Computing Society (DoCSoc) Secretary — 2016 – 2017

- Hosted Opening and Closing Ceremonies for IC Hack 17, the largest student-run hackathon in the country, which I also organised
- Raised £100,000 of sponsorship, created 20-page societal handbook, sent weekly emails to 1,200 members, and liaised with companies who wished to sponsor the society

BlackRock Hackathon Prize for Most Outstanding Hack — 2016

- Awarded for most outstanding hack at HackSheffield 2.0, a productivity macOS app made with Swift that blocks certain websites based on geofencing and your current location

Japanese Language Proficiency Test Level N3 — 2015

- Ability to understand and converse in everyday Japanese, recognises a good grasp of the language

Arkwright Engineering Scholarship — 2013 – 2015

- Awarded for outstanding potential as a future leader in engineering, sponsored by the University of Sheffield