Benjamin (Ben) Howe

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An adaptable engineer with experience in a variety of languages seeking to enable engineering teams to be more effective. In his spare time, he enjoys learning new technologies and working on various side projects.

Professional Experience

American Express – Backend Engineer   Since 2020

- Created a "template" repository for new microservices, saving 110+ engineer-hours.
- Collaborated with various teams including InfoSec and CI/CD to enhance tools.
- Trained mainframe colleagues in new technologies, including Java, Jenkins, and BDD.
- Built a reusable library to enable slack alerting without depending on the pod networking.
- Dockerised microservices and experimented with BYOI to improve DX and flexibility.

American Express – Graduate Engineer   2018-20

- Graduate rotations: Loyalty, Global Pay, Application Security, and Enterprise Token Vault.
- Used various languages (Java, Kotlin, React, etc.) and tools (Git, Maven, Cucumber, etc.) within scrum teams. Worked with product owners to size user stories and refine backlogs.
- Cleaned code and added additional tests to improve reliability and development speed.
- Designed a technical test for apprentice candidates, to ensure that all discovery day attendees have strong technical ability. Chaired a panel to review submissions.
- Participated in the UK Product Summit Dream Team twice, leading ~20 graduates in 2019.
- Mentored a new graduate as they joined the team, helping them to settle into Amex.

University of Reading – Student Demonstrator   2017-18

- Contributed to various first- and second-year lab sessions, including authorising marks.

Junction11 Radio – Head of Technology   2016-17

- Developed, documented, and maintained the entire technology stack.
- Assisted University IT services in enabling IPv6 throughout the studio.

Krystal Hosting – Software Engineer (Summer Intern)   2017

- Developed automated self-service tools to mitigate repetitive support tickets.

American Express – First Foundry Analyst, Technology (Summer Intern)   2016

- Became an internal expert on the Elastic Stack and helped lead an internal hack day.
- Created and deployed to production a Kibana dashboard to monitor SLA compliance.

Goldman Sachs – Spring Intern, Technology   2016

- Designed an iOS application as a group using internal tools; won prize for "Best Team".

Mythic Beasts – Software Developer   2014-15

- Wrote a modular Perl script to detect WordPress blogs with unpatched security holes.
- Led a research project on HHVM; increased the transactions per second by 600%.

Wolfpack Fashion – Director of IT   2012-13

- Formed a start-up selling custom clothing as part of the Young Enterprise scheme.
- Set up a website and online store, ensuring compliance with PCI-DSS.
- Won multiple awards including Best Young Enterprise Company and Best IT.

Education

University The University of Reading: BSc (Hons) Computer Science, first class honours.
Achieved the RED award (employability skills certificate) three times.

A Levels Computing, A; Physics, B; Mathematics, C; General Studies (AS), A.
EPQ: "A ciphertext-only attack on classical substitution ciphers in Python", Distinction

Projects

- **ip6on.ly (work in progress):** a tool written in Node.js which uses Puppeteer and Chromium to easily verify whether websites render as expected when loaded over an IPv6-only connection.
- **Mid Sussex Swim:** a static website (regularly updated via cron) which scrapes the websites of local swimming pools to visualise swim session availability using a colour-coded system.
- **YAMM:** a money manager consisting of a Java application which exposed an API for a web-GUI to consume. Transaction data was automatically scraped, with credentials encrypted using AES.
- **ShareLive:** a web application enabling multiple users to listen to the same music as the same time and create a shared playlist. Won the award for Best Use of the Pusher API at BrumHack 5.0.
- **Library API:** a Python module compatible with various library systems, allowing access to the catalogue and the user's account. Used while studying to automatically renew books and avoid fines. Won the award for Best Developer Tool (presented by GitHub) at BrumHack 4.0.
- **Explain To Us:** my project at the Young Rewired State Festival of Code in 2014. A static website (regularly updated via cron) which uses the HTML5 MediaStream API to invite parliamentarians to upload a short video to explain their private member's bill(s). Nominated for Best in Show.
- **OCR Computing:** a revision website written while studying my A Levels. As-of decommissioning it had been viewed approximately 500,000 times by 85,000 unique users from over 150 countries.

Wider Community Involvement

The Boys' Brigade – Lieutenant and Member of the England Regional Committee Since 2010

- Represented the Southern District at a regional level since 2018.
- Volunteering weekly with the 1ˢᵗ Lindfield company with young people aged 11-15.

Reading University Students' Union – Computer Science Course Representative 2016-18

- Elected chair of the Staff-Student Liaison Committee and represented the student body on the course Board of Studies and the School Board of Teaching and Learning.
- Regularly and tactfully shared student feedback with module conveners.

R.U. Not Drinking Much? Society – President 2016-18

- Organised regular events to give students an alternative to alcohol-oriented socialising.
- Chaired committee meetings and liaised with external parties to arrange funding.

R.U. Hacking? Society – Treasurer 2016-17

- Formed part of the founding committee to create a hackathon society.
- Built relationships with organisations to make events free and fund food and prizes.

FIRST Stop – Volunteer (First-Aid Trained) 2015-18

- Worked with police and paramedics to reduce the night-time economy's effect on hospitals.