

# Rob Calcroft

WEB ENGINEER

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## Education

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### University of Portsmouth

Portsmouth

BSc COMPUTER SCIENCE (HONS) WITH FIRST CLASS HONOURS

September 2012 - June 2016

- Designed, developed and documented a wish-list creator with public **OAuth2 API** built using **Node.js & PostgreSQL** for final year dissertation. It was awarded a **first**. Report at [calcroft.com/dissertation](http://calcroft.com/dissertation) & source code at [github.com/robcalcroft/wishlist-api](https://github.com/robcalcroft/wishlist-api)
- Dissertation was **awarded the Clever Touch prize** for Most Original Business System
- Participated in various hack days during the course. Projects included an animatronic Sorting Hat from Harry Potter, an HTTP controlled Arduino and some bots for the Telegram messaging platform

### The Sixth Form College Farnborough

Farnborough

3 A2 LEVELS INCLUDING COMPUTING & MATHEMATICS, 2 AS LEVELS

September 2010 - June 2012

## Experience

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### Opsview

Reading

FRONT-END DEVELOPER

July 2016 - Present

- Developing scalable front-end software for a monitoring platform.
- Primarily using **ExtJS** coupled with vanilla **JavaScript, CSS, SCSS / SASS**, and **HTML** in an **agile** environment.
- Conduct formal code reviews for front-end team using feature branches to manage new functionality
- Named Employee of the Quarter
- **Line manager and team leader** for the front-end web team, supporting them with, pair programming, one to one meetings and career direction
- Manage **hiring** process for interns, performing telephone and face to face interviews, as well as **conducting technical tests**
- **Perform employee annual reviews** providing feedback to management about employee progression
- Successfully led **solo architecting and development** of a **React Native** app to production on iOS and Android in under 6 months. Project used **React, ES2015+, Redux** and required building of custom React Native components which were **open sourced**. A summary of developing the app including technical decisions and challenges can be found at [blog.calcroft.co/post/9](http://blog.calcroft.co/post/9)
- Required to document new processes and update existing documentation in a technical but comprehensible manner
- Used **Jenkins** and **Gerrit** to manage sustainable continuous integration of applications
- Maintain **Vagrant** development environments using **Ansible** as the provisioning tool
- Required to understand and refactor challenging legacy code
- Built tools to interact with **Amazon S3** using **Node.js**

### Opsview

Reading

TECHNICAL INTERN

June 2014 - July 2015

- Placement year in industry from degree course
- Began in Customer Success department assisting with internal queries and upgrading and maintaining **Git, LDAP and DNS** servers.
- Was **moved to Engineering department after redeveloping company intranet page** in down time.
- Worked with **ExtJS, HTML, CSS & SQL** to help ship company's largest release, Opsview 5.
- Heavily involved with documenting new release and new practices.
- **Mentored two new interns** in both Customer Success and Engineering departments, helping them with queries and having meetings to teach company practices as well as computing skills.
- Offered **permanent employment** after degree course

### University of Portsmouth

Portsmouth

IT HELP ADVISER

September 2013 - June 2014 & September 2015 - May 2016

- Helping students with computer queries such as account and profile issues.
- Required ability to multi-task and explain issues to non-technical users.

### British Pullman, Orient Express

London

PORTER

July 2010 - January 2013

- Part time employment working as part of a small team of 4 kitchen staff, assisting with passenger queries such as directions.

# Open Source Projects

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## Monzo Web

GITHUB.COM/ROBCALCROFT/MONZOWEB

- Built using banking startup Monzo's - [monzo.com](#) - OAuth2 authenticated API
- Provides a web interface for users to view their Monzo bank account
- Community members have contributed to the application which required discussions about their code style and approach
- Versioned using the **SEMVER** versioning model
- Received positive feedback from community members on Monzo's Slack channel and [over 30 stars on GitHub](#)
- Built using Facebook's **React**, **Node.js** and **Webpack** with plans to add state manager Redux

## calcroft.com

GITHUB.COM/ROBCALCROFT/CALCROFT.COM

- My personal website, which has gone through many iterations
- Optimised the site for performance; gzipped source without images is a little over **4kb**, making it load incredibly fast even for users with **slow devices or networks**
- Utilised **LetsEncrypt** to provide me with a sustainable HTTPS solution, complete with 'Strict Transport' headers for added security
- Runs with **NGINX** and **PM2** on a self administered **Digital Ocean** server
- I wrote about the architecture of the site a couple of times, first when I discovered React [blog.calcroft.com/post/5](#) and then when I focused on performance and fast loading [blog.calcroft.com/post/8](#)

## Offline Train Times

GITHUB.COM/ROBCALCROFT/CHOOCHOO

- Experiment for university module into Service Workers and offline web experiences
- Used National Rail API to show train times for specified journeys and cached files and results on user's browser using **Service Workers** and localStorage for state saving
- Experiment showed relative ease of implementing **offline experiences** for uses with slow or non existent network connections but slow adoption of technologies in current browsers

OTHER OPEN SOURCE PROJECTS ARE AVAILABLE AT GITHUB.COM/ROBCALCROFT AND CALCROFT.COM/#PORTFOLIO

# Writing & Speaking

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## Blog

BLOG.CALCROFT.COM

August 2015 - Present

- Discuss the web and challenges it faces & how to tackle them
- Document projects and discoveries
- Share new practises and technologies

## Talk

OVER-ENGINEERING IN THE WEB

November 2016

- Spoke at the University of Portsmouth at the IT Society's Lightning Talks about how over-engineering in the web affects developers and users

# Activities

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## sk8 Jam (Roller skating sessions)

Camberley

STEWARD & INSTRUCTOR

2005 - 2012

- Inline roller skating instructor for all age groups and all abilities
- Acted as steward for roller skating sessions which involved organising games, supervising proceedings and enforcing rules

# Interests

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- Travelling
- Working on and contributing to open source software
- Gaming
- Roller skating