

## Summary

*Product-focused Technology Lead.*

I learnt to program when I was sixteen after discovering a small but flourishing homebrew community. Realising that self-taught amateurs were able to network with each other to create products without large amounts of capital was hugely inspiring to me. While the culture of software development has changed since then, I'm still amazed by what can be built by small empowered teams.

As a full-stack engineer I've managed to stay on top of language trends, however often work in JavaScript due to its preva-

lence, or Rust due to its forward-thinking design. I consider my speciality to be in combining technical knowledge with lateral thinking, and a role I like to occupy is that of advising businesses on cross-functional product/technical designs that should maximize their *technical leverage* while also reducing their exposure to *execution costs*.

Over the years, my engineering practices have been influenced by: [the twelve-factor app](#), functional programming, micro-services, unit testing (TDD), the [Elm Architecture](#), and [Simple Made Easy](#).

**Technical specialties:** Full-stack software design and implementation. I follow the mantra *the right tool for the right job* and quickly pick things up. I enjoy working both on the back-end with NodeJS and Rust; and on the front-end with JavaScript, React, Redux and Flowtype. I've also done some work for iOS using Swift.

**Leadership, Product & Operations:** Experience in team leadership; enjoy being involved in: product design, UX, customer/business modelling/analysis; ran a Hackathon with 80 participants.

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## Experience

### Momentum

LONDON, UNITED KINGDOM / REMOTE

#### Freelancer

Jun '13 – Present

*Freelancing, consulting and open-source activities.*

- [Banking for your command line](#). Written in Rust.
- [Access Twitter data without an API key](#).
- [Quick and easy JSON transformations](#).
- [An Express.js middleware to allow one-line installation of analytics into Node.js projects](#) for the Sequoia Capital backed startup [Keen IO](#). This was a project born out of an idea I suggested as a way of reducing the time-to-setup of their analytics service from multiple hours/days to around 15 seconds.
- Continued work on my app [Spokes](#). Designed with Sketch and programmed using Node, Koa, Redis, the graph database [Neo4j](#), Swift, and [ReactiveCocoa](#) as well as a few other [Cocoapods](#).

### McKinsey & Company

WESTERN EUROPE

#### Full-stack Engineer

Apr '16 – Dec '16

*McKinsey & Company is a worldwide management consulting firm.*

- Code reviews. Mentoring. Documentation. Architecture.
- D3. React. Redux. Node.js.
- Wrote a number of open-source projects (e.g. [redux-saga-helpers](#) and [react-redux-wizard](#)).

### The Economist

LONDON, UNITED KINGDOM

#### Software Engineer

Sep '15 – Dec '15

*The Economist is an English-language weekly newspaper.*

- React. ES6. Node.
- Numerous components (e.g. [@economist/component-articletemplate](#)) used in [The World In 2016 project](#) and potentially other projects.

### Home Office

LONDON, UNITED KINGDOM

#### Contract Technology Lead

Jan '15 – Sep '15

*The Home Office is a ministerial department of the Government of the United Kingdom, responsible for immigration, security, and law and order.*

- Rebuilt a sprawling legacy system into 6 Node.js microservices harnessing infrastructure, services and libraries built for the [Passport Exemplar project](#).
- 1 JWT Authentication API with LDAP as its backing service; 1 old-school Express.js front-end app; 1 single-page app built with React + Flux + ES6 (Babel); 2 RESTful Express.js APIs; and 1 command-line app to run tasks on the Postgres database.
- Gave strategic advice on the architecture of a new project, and later presented this plan at 'Show and Tell' to a wide range of people throughout the organisation.
- Created some early prototypes using Java 8 + [Dropwizard](#) + [Swagger](#).

### Red Badger

LONDON, UNITED KINGDOM

#### Contract NodeJS Consultant

Mar '14 – Jul '14

*Red Badger is a creative software workshop.*

- This was a client-facing role in which I provided training to an external team.
- NodeJS, RabbitMQ, Elasticsearch, Redis.

## Hailo

LONDON, UNITED KINGDOM

### Contract JavaScript Engineer

Sep '13 – Jan '14

*Hailo is the evolution of the hail – a free smartphone app which puts people just two taps away from a licensed taxi, and lets cabbies get more passengers when they want them.*

- Created a series of single-page dashboard apps. Conversations with internal customers helped me to come up with ideas on how to simplify business processes. For example a way of signing off groups of driver's profile changes was given a UX that defaulted to approval but forced the user to sign a receipt of the changes: this helps with speed while also ensuring accountability.
- Other components were created so that behaviour relating to presentation was well-separated from configuration and data input; or made so that they could be updated in real-time, for example: an animated map of driver locations.

## BIZZBY

LONDON, UNITED KINGDOM

### Senior Node.JS Engineer

Apr '13 – Jun '13

*Bizzby is app your service to help you book a trusted local service in 30 seconds.*

## We R Interactive

LONDON, UNITED KINGDOM

### Team Lead

Oct '12 – Apr '13

*We R Interactive blends the best of games, film and TV production to create social games that bring global audiences together around sport and music.*

- Designed and lead the creation of a back-end system to support a sport game as well as recruiting developers for my team.
- The system was decomposed into multiple services and stored data in Cassandra. I created a service which would automatically generate a series of questions from a stream of data and a template, a real-time market-outcome resolution service that would automatically resolve a series of previously generated questions depending on a simple DSL and a stream of real-life data, and a service that could have data pushed to or pulled from it and parse this data into a common format before feeding it into a message queue for deeper processing.
- Setup a continuous integration system using Jenkins, and used Puppet to automate deployment of some of the services to AWS. Later on third-party data issues were reported to stakeholders and dealt with through design changes relating to logging and testing the data quality.

## Saffron Digital

LONDON, UNITED KINGDOM

### Team Lead

Oct '10 – Oct '12

*Saffron Digital is the global, market-leading provider of connected device video, DRM, advertising and platform services. Saffron Digital was acquired by HTC in 2011.*

- Project leader and architect of the HTC Watch project in which I lead a team of five developers. Due to my early work on internationalisation and implementation of multiple payment services we were able to run this globally in close to 20 countries. Later on the project became a baseline for future web services for other clients.
- Significant input in re-engineering development process as we moved from being a startup to a larger company. For example: an engineer empowering company culture; Git instead of SVN; continuous integration; modern deployment tools; etc.
- Architecture and development of a new platform based on understandings gleaned from previous services. Worked on service to orchestrate and configure encoders in order to run encodes in parallel on AWS.
- A client-side application for Samsung Connected TVs and set-top boxes written in object-orientated JavaScript.

### PHP Developer

Feb '10 – Oct '10

- A RESTful web service for FOX to support a fully localised Family Guy video streaming Android application. A CMS was also created as well as reporting tools to give the business metrics to measure activity.
- A web service for Paramount Studio's the League of Extraordinary Dancers iPhone Application. This was interoperable with the iTunes video store in order to check receipts.

*Please refer to [my LinkedIn profile](#) for the complete list of work experiences along with recommendations.*

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## Education

### Coursera

ONLINE

#### Machine Learning

Feb '16

Course Certificate, License E3XLGER56CQ3

### University of Kent

CANTERBURY, UNITED KINGDOM

#### Bachelor's degree in Computer Science

2005 – 2009

Courses included Computer Systems and Algorithms, Data Structures and Complexity, Data Mining and Knowledge Discovery, Operating Systems and Architecture, Software Engineering Practice, Database Systems, and Distributed Systems and Networks. While studying here I also coordinated and guided a team of four developers creating a DJ mixing application in Java for my final project.

### Cranbrook School

CRANBROOK, UNITED KINGDOM

GCSEs & A-Levels (secondary education)

2000 – 2005

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## Interests

Design, Economics, Philosophy, Poetry.