

The core of my skillset is front end and I've added 5 years' Node.js. I also have extensive experience in automated testing, web performance, accessibility and CI/CD.

I understand every angle of a successful agile team including user-centred testing and design, lean UX, early & continuous delivery, TDD, test automation, pairing and shared ownership of quality and dev-ops.

I know how to manage the trade-offs in scaling up teams and codebases and have plenty of tech leadership experience including mentoring and interviewing.

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## Full-stack Javascript

- React including latest APIs, hooks, context, server-rendering / isomorphic
- React ecosystem / tooling including Redux, Webpack, Next.js, Razzle
- Typescript
- Node.js, Express, PostgreSQL, MongoDB
- ES.Next language features
- Functional / asynchronous programming patterns
- TDD / BDD with Jest, React Testing Library, Enzyme, Cucumber, Supertest
- Browser testing using Cypress, Nightwatch, Webdriver.io
- REST API design
- Security awareness including XSS, CSRF
- Micro-frontend architectures
- Basic React Native

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## Styling

- CSS-in-JS including Styled Components, Emotion
- OOCSS / BEM
- Adaptable layouts with grid / flex box
- SASS / LESS / PostCSS
- Rapid prototyping including Foundation / Bootstrap
- Responsive design / mobile-first

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## Other front end

- In-depth understanding of front end performance including progressive enhancement, caching, HTTP2, resource hints, bundle splitting, inlining critical CSS, deferred loading, Real User Metrics
- Performance measurement - Lighthouse, WebPageTest, SpeedCurve, Navigation / User Timing APIs
- Authoring re-usable component libraries & distributing as NPM modules
- Accessibility - extensive practical experience; screenreader / voice activation, ARIA, keyboard access
- SEO - structured data / schema.org; Accelerated Mobile Pages
- Progressive enhancement for performance / robustness / cross platform use
- Mobile web development and debugging using emulators / remote dev tools
- Optimisations for mobile including device class recognition / adaptive design
- Vector graphics – interactive SVG
- A strong understanding of UX and interface design principles

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## General tooling / software engineering

- Micro-services - architecture, testing, deployment
- Monitoring / alerting / metrics eg New Relic, Datadog
- Deployment / CI with AWS / CircleCI / Jenkins / Travis / Heroku / Docker
- Use of feature flags to introduce experimental features
- Git / Github
- Basic Ruby on Rails development

## Professional experience

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### Trainline

Mar 20 - present

A focussed effort to increase user engagement and signup. I also worked on accessibility improvements eg screenreader testing. React inc hooks / Node.js / Typescript / React Testing Library

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### Culture Trip

Mar 19 - Mar 20

Added hotel booking to a high-traffic travel web site. Helped set up a component library, and prototyped a micro-frontends architecture. Stack is React / Node.js / Typescript / Styled Components

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### Sainsbury's

Aug 18 – Mar 19

Accessible web apps to engage with Sainsbury's suppliers at [togetherwith.co.uk](https://togetherwith.co.uk), built with React / Node.js.

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### Financial Times

Dec 17 – Aug 18

Rebuild of [ft.com](https://ft.com) user preference centre in Node.js. Fast page load performance, accessibility and progressive enhancement were all requirements.

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### The Times

Nov – Dec 17

UI components for native and web drawn from a single library using React Native Web.

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### Agri-tech startup

May – Sept 17

Rapid prototyping of game-changing ideas for the agri-tech industry involving provenance and waste reduction. Native and web apps built with React, Redux, React Native, MongoDB and REST APIs.

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### Times Educational Supplement

Apr 15 – Apr 17 , Oct 17

Rebuild of [tes.com](https://tes.com) flagship Jobs site, home page and news feed with a cutting-edge tech stack of React, Redux, Node.js, Docker. I helped lead the rebuild of the front end architecture including component-based SASS and a drive to improve page load performance.

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### Government Digital Service

Nov 14 – Apr 15

Interactive, fully accessible data visualisations to show how much government services cost to run and how many people use them ([www.gov.uk/performance](https://www.gov.uk/performance)).

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## Equal Experts

Oct – Nov 14

A short contract at the Home Office, prototyping a shift-swap system for Heathrow workers.

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## The Money Advice Service

Feb – Oct 14

A pension calculator. Development was guided by observed user-testing and fully accessibility tested. A Rails stack with SASS, OOCSS, Karma, Mocha plus Capybara for UI testing.

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## Which?

Apr 13 – Feb 14

TV Reviews site built with Rails. Progressive enhancement was used with Ajax / pushstate for fast initial page loads and rapid switching of views. Rapid prototyping of ideas for graphing data with SVG.

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## Royal Bank of Scotland

Aug 12 – Mar 13

Single page apps for Markets & International Banking using Backbone / Marionette / REST. Acceptance tests with Ruby / Cucumber. Javascript testing in Jasmine.

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## Associated Press

Jan – Aug 12

A brand-new delivery platform for broadcast-quality video news ([apvideohub.com](http://apvideohub.com)). Video Hub has been a major success for AP and has expanded into a marketplace for other content providers including WSJ and NY Times.

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## Betfair

Jan – Dec 11

A complete rebuild of Betfair's sports site which handles millions of transactions daily. Page load time was analysed in WebPageTest and reduced from 20s to < 2s. I used YUI3 and unit tested with Jasmine.

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## LBi

Jul – Dec 10

SVG data visualisations for a national energy saving scheme and interactive graphs for online banking.

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## Espresso Education

Oct 02 – Jun 10

Video-rich learning resources subscribed to by over half of the primary schools in England, and winner of multiple BETT awards and a Children's BAFTA. I became lead front end developer across all products, working closely with content producers and mentoring other developers.

## Education & interests

2:1 BSc (Hons) Biology - Cardiff University | 3 A levels (Maths, Business, Spanish)

I enjoy road / mountain biking, gym training, learning the piano (I've just passed grade 1), travel and helping my kids with their pursuits. I've also taken evening courses in sculpture, life drawing and oil painting.