

I have a very strong track record of rapidly delivering quality software. The core of my skillset is front end and I've added over 2 years' solid experience in Node.js and React. I have a good handle on the array of developments in the Javascript space, plus the experience to know which of them to benefit from. I'm passionate about web performance and know how to measure and achieve it.

I understand every angle of a successful agile team including cross-disciplinary collaboration, user-centred testing and design, lean UX, early & continuous delivery, TDD, test automation, pairing and how to funnel business requirements through user stories.

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## Full-stack Javascript

- React, Redux, isomorphic apps
- Node.js development, Express, Handlebars, MongoDB
- Micro-services architecture - benefits and pitfalls
- ES6/2015/2017 language features and transpilation with Babel
- Functional programming / object oriented techniques
- TDD / BDD with Mocha, Karma, Sinon, Jasmine, Nock, Enzyme, Nightwatch, Cucumber, Saucelabs
- Build / bundling / task tools - Webpack / Browserify / Require.js / Gulp / NPM / Yarn
- HTML5 APIs - History, Form validation, Local storage, Drag and drop
- REST API design
- Android / iOS app development using React Native

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## Front end

- Componentized, re-usable CSS using OOCSS / BEM
- SASS / LESS pre-processors
- 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
- Responsive design including media queries / mobile-first / responsive images
- Mobile development and debugging using emulators / remote dev tools / Ghostlab
- Live styleguide construction
- Rapid prototyping including Foundation / Bootstrap
- Vector graphics – interactive SVG with D3 / Raphaël

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## Page performance

- Synthetic performance metrics with WebPagetest and SpeedCurve
- Real User Metrics capture including Navigation Timing / User Timing APIs
- In-depth understanding of front end performance techniques including progressive enhancement, caching, HTTP2, resource hints, service workers, bundle splitting, inlining critical CSS, deferred loading
- Creating Accelerated Mobile Pages (AMP), including in a React stack
- Optimisations for mobile including device class recognition / adaptive design

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## Other tooling / languages

- Git / Github
- Basic Linux / Docker admin
- Deploy / CI with Travis / Heroku
- Basic Ruby on Rails development. View layer integration with .NET and Java.

# Professional experience

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## Stealth mode startup (via Guidesmiths)

*May 17 – present*

Rapid prototyping of game-changing ideas for the agri-tech industry, as native and web apps. I'm adding experience in React Native, MongoDB and REST API design.

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## Times Educational Supplement

[www.tes.com](http://www.tes.com)

*Apr 15 – Apr 17*

Rebuilding TES's entire digital offering including their flagship Jobs product, home page and news feed using a cutting-edge tech stack of React, Redux, Node.js, Docker.

I've rapidly developed isomorphic apps using React and 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

[www.gov.uk/performance](http://www.gov.uk/performance)

*Nov 14 – Apr 15*

Interactive data visualisations to show how government services are performing, eg. how much they cost to run and how many people use them. I built a fully accessible services overview page and prototyped a dashboard setup tool.

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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

[www.moneyadviceservice.org.uk/en/tools/pension-calculator](http://www.moneyadviceservice.org.uk/en/tools/pension-calculator)

*Feb – Oct 14*

A responsive (mobile-first) pension calculator to aid the public in retirement planning. Agile development was guided by observed user-testing and accessibility audits.

All content was built with progressive enhancement and tested for full accessibility by real users of assistive technology. A Rails stack with SASS, OOCSS, Karma, Mocha plus Capybara for UI testing.

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## Which?

[www.which.co.uk/tv-and-home-entertainment](http://www.which.co.uk/tv-and-home-entertainment)

*Apr 13 – Feb 14*

A responsive Reviews site built with Rails / HTML5 / SASS / OOCSS / jQuery, with testing in Cucumber and Jasmine. 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 HTML5 / CSS3 / RequireJS / Backbone / Marionette / Angular / REST. Feasibility / prototyping of high volume data flows using Slickgrid. Acceptance test automation with Ruby / Cucumber. Javascript testing in Jasmine.

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## Associated Press

[www.apvideohub.com](http://www.apvideohub.com)

*Jan – Aug 12*

On any given day, more than half the world's population sees news originating from AP. This project was to build a state-of-the-art delivery platform for broadcast-quality video news.

Video Hub has been a major success for AP and has expanded into a marketplace for other content providers including The Wall Street Journal and The New York Times.

I was responsible for the whole front end architecture using HTML5, Javascript, Jasmine and CSS 3.

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## Betfair

[www.betfair.com/exchange](http://www.betfair.com/exchange)

*Jan – Dec 11*

A complete rebuild of Betfair's sports site which handles millions of transactions daily. Page load time was reduced from 20s to < 2s.

I gained great experience in analysing page load performance with Webpagetest, plus modular OO Javascript, YUI3, LESS, Agile and unit testing with Jasmine.

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## LBi

[www.lbi.com](http://www.lbi.com)

*Jul – Dec 10*

LBi is one of the most successful global digital agencies. In a team of 20+ interface developers, I quickly increased my skills in Javascript and UI development. My projects included SVG data visualisations for a national energy saving scheme and interactive graphs for online banking.

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## Espresso Education

[www.espresso.co.uk](http://www.espresso.co.uk)

*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 was lead front end developer across all products, working closely with content producers and mentoring other developers.

I devised and managed a scalable CSS system and built interactive, accessible features.

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## Newham Local Education Authority

*Nov 01 – Oct 02*      Internet development officer - web site development for schools.

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## Merck Sharpe & Dohme (Sydney)

*May – Jul 01*      Front end developer on a rebuild of an online medical resources website.

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## Sage Software / Apex Software (Manchester)

*Nov 96 – Jan 01*      Delphi developer; Web development including e-commerce and SEO.

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## Education, certification & interests

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

I hold the 'SC' level of security clearance valid until 2021 (originally obtained for a short contract at the Home Office).

I enjoy running, gym training, learning the piano and helping my kids with their pursuits. I've also taken evening courses in sculpture, life drawing and oil painting.