

# Chris Ward

Full-Stack Developer & DevOps & AI & Security

*24 years experience, 15 years contracting*

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Strong in many disciplines, most notable for providing simple solutions for complex problems.

Passionate about the industry, I strive to innovate and share my technical experience and knowledge at every opportunity.

## ★ JavaScript

- Vanilla, TypeScript
- Frameworks - React, Vue, Angular, Backbone, jQuery
- TDD & BDD - Cucumber, Cypress, Jest, Mocha
- Build systems - Webpack, Babel, Grunt & Gulp
- Object Oriented and Functional paradigms

## ★ CSS

- LESS, Sass & Stylus CSS pre-processors
- Responsive/Progressive Web Design for all platforms
- Twitter Bootstrap, Tailwind, Antd, MaterialUI design systems

## ★ DevOps & Automation

- Shell scripting - Powershell, Bash
- Virtualisation - Docker, Docker-Compose, Packer, Vagrant, QEMU
- Provisioning - Terraform, Ansible, Puppet (+ RSpec BDD)
- Orchestration - Kubernetes, Rancher, SST
- Cloud providers - AWS, Azure
- Continuous Integration - Jenkins, TeamCity, CircleCI, Bitbucket
- Jira Integration APIs

## ★ Software Development

- AI/ML (python, local LLMs, RAG, Stable Diffusion)
- Golang (AWS Lambda, gRPC, GoMock, GORM)
- C# (.NET 1.1 - 3.5, .NET Core, Mono, Nunit, SpecFlow)
- Node.js (Grunt & Gulp workflows, Websockets, HTTP, Promises, Console applications)
- MS-SQL, MySQL, PostgreSQL, Oracle
- MongoDB, DynamoDB, Elasticsearch
- Other; Erlang, Ruby, Python, C, Java, PHP

## ★ Other technical

- Internet of Things (electronics)
- Information Security (working towards CISSP, OSCP)
- XML (XPath, XSLT, XQuery), design & architecture.
- 3rd Party APIs, CMS, and toolsets
  - CMS (SiteCore, Sharepoint, Adobe CQ5, Ektron, Drupal, Wordpress)

## ★ Marketing, Design & Usability

- Search Engine Optimisation, Pay Per Click marketing
- Web-design - Accessibility, Usability/Contingency design
- A/B & Multivariate testing

## Romford Digital (Projects/Startups)

Feb '12 - Current

Founder - Golang, Python, TypeScript, gRPC, Kubernetes

A series of AI/ML SOTA proof of concepts, and automation. Demos available.

- AI Avatar for live-streaming on Twitch, leveraging local LLMs and SOTA generative content creation.
- End-to-end automated publishing of colouring books to Amazon KDP (local LLMs, Stable Diffusion)
- Voice control assistant build from scratch using Golang and gRPC microservices
- Proof of concept for world's first AI modelling agency, with Stable Diffusion.
- Website and software development automation platform, with local LLMs and Stable Diffusion.
- Zoom/Teams/Hangout clone for personal use.
- Total build of an E-commerce platform for selling NFTs, Merchandise (t-shirts, mugs, etc).

## ★ eight&four

Apr '24 - Current

Contract AI Architect - Generative AI, Stable Diffusion, Python, Golang, HTMX, TypeScript, Jest TDD, ThreeJS, AWS, Docker, gRPC microservices, ELK, UX Design

An end-to-end fully autonomous build. I am currently architecting, designing and delivering a Generative AI platform for eight&four, a digital marketing agency.

The platform is to deliver creative content for their clients in the automotive and gaming industries.

## ★ ThinkMoney (via AND Digital)

Aug '23 - Nov '23

Contract Backend Developer - Golang, OpenBanking, AWS; Lambda, DynamoDB, via SST

Helped build a bank, a complete rebuild of the app! Embedded on the payments team, I would be responsible for Confirmation of Payee compliance (SurePay) and the core business function of taking monthly fees for the service.

## ★ Spicy Mango

Feb '23 - Apr '23

Freelance FullStack Developer - JavaScript, TypeScript, React, Next.js, Sass, LostPixel, Storybook

Spicy Mango is an expert media technology consulting and software delivery group to broadcasters, content owners and service providers worldwide.

Build for a series of webpages in static HTML/CSS, instead I decided to utilise and leverage React + NextJS to build a lightweight componetised design-system.

Packed with extra value, I quickly integrated Storybook to assist design tweaks, made suggestions to integration processes between the teams, and also added the visual-regression testing tool LostPixel.

In all, a 30-page build ended up becoming 100+ pages - there were three contexts and three other brands that the pages were to be white-labelled for. As you can imagine, QA times were heavily reduced through my early choices.

Each deliverable was hit on-time and I would rate the method and execution a success!

## ★ EasyFundRaising (The Support Group)

Oct '21 - Jun '22

Contract FullStack Developer - JavaScript, TypeScript, React, Kubernetes, Jest TDD, Cypress BDD.

EasyFundRaising is a multi-platform browser extension to allow users to collect cashback donations for a charity of their choice, a tool that claims up to 60% of the company's revenue.

- Successful delivery of a change in the legacy codebase, a hard deadline for consent tracking in Firefox.
- Supporting a migration to the TypeScript version of the tool, with delivery to iOS devices.
- Identified a weakness in the testing strategy and successfully demonstrated a Jira/XRAY + Cucumber/Cypress solution that was well-received.

## ★ TOAD

Nov '20 - Feb '21

Contract "Everything" Lead Developer - React & Gatsby, Storybook, Terraform, Azure, TypeScript, GraphQL (Apollo), NodeJS, MongoDB, Redis

TOAD is an advertising agency - their client, the NHS, are currently commissioning a project that allows children to access materials on mental health - with a supplementary interactive lesson in the classroom. In the schools the programme has been trialled in, all have shown an absolute reduction in bullying.

For this mostly-autonomous role I would wear all hats, UX, BA, PM, Testing, Full-stack Development, DevOps - Solutions Architect.

## ★ Leagas Delaney

Sept '19 - Feb '20

Contract Full-stack Developer - React & Node.js, TypeScript, GraphQL

Leagas Delaney is an advertising agency - the project titled "Create/React", will automate the end-to-end workflow of an advertising campaign creation.

Front-end development with React Functional Components with Tailwind, some back-end tasks of automation, building endpoints for GraphQL (Apollo), integration with 3rd party web-services, including integration tests.

## ★ EventsTag

Oct '17 - Aug '19

Freelance Developer - React & Node.js

Design, development and delivery of a full-stack application as a promotional tool for Pringles. I would be tasked to create UIs for a tablet application and back-office fulfilment system, the backend websocket/promise services for the bespoke workflow of orders being placed at a promotional event in Times Square, New York. I would also guide on architectural and user-experience decisions.

Other projects;

- "Room On A Broom" - interactions via Arduino to a NodeJS web-service, involving RFID readers and LEDs.
- Delivered a series of microsites for O2 venues, for social feeds of artists; using React, ES6, Babel, Webpack.
- Project for integration testing of web-services for "The Monster" vending machine - Postman.

## **Sportplan**

Jul '17

Contract Front-end Developer - Backbone.js

Development to extend the functionality of a mobile application used to take payment for groups.  
Stripe API credit-card integration.

## **Adstream**

Feb - Mar '17

Contract Full-stack Developer - C# & Angular

Supporting role for a sprint release - Full stack development including technologies such as C# on .NET Core.  
Docker, MongoDB, NodeJS, ElasticSearch.

## **★ Carphone Warehouse Dixons**

Apr - Jun '16

Contract Lead Automation Engineer, Angular & Protractor

Architecture and delivery of an automation framework for BDD testing and continuous integration, integrating  
Cucumber scripts with Jira to drive automated tests through Protractor on an Angular front-end.

Mindful of other junior team-members and the need to scale the project across all parts of the business, I directed to  
build the framework with TypeScript in a virtualised and standardised development environment.

## **VCCP**

Aug - Sep '15

Contract Front-end Developer, Backbone.js

Invited back to VCCP in a supporting role, to help with the delivery stage of a Backbone.js RIA avatar creator for  
O2's Rugby World Cup campaign.

## **University of East London**

Apr - Jul '15

Contract Full-stack Developer, C#

Front-end build and integration for the UEL SiteCore responsive website.

Requested to interview and assess permanent assets, I would also help to train these developers.

Architecture and development of a standardised development environment with Vagrant & Puppet, to remove  
onboarding overheads and ensuring concurrency.

Introduced QA automation to the team - BDD tests in C# driven by Specflow, integrated to Teamcity.

## ★ VCCP

Nov '14 - Feb '15

Contract Full-stack Lead, Backbone / Node.js

- Autonomous delivery with industry best-practices, IoT integration.

Lead developer for a full-stack Backbone.js / HTML5 "Internet of Things" iPad application for the Qatari Investment Authority, showcasing real-estate property for sale at Chelsea Barracks.

Given full autonomy I delivered the project entirely independently, from gathering requirements to architecture, project management, testing and delivery. Successfully delivered under budget and early to the deadline.

The application would enable real estate consultants to showcase properties for ultra high-net-worth individuals, utilising HTML5 websockets to make remote calls to interact with the physical models of the properties on sale, and also remote screens to deliver an immersive experience.

The application would be powered by a Node.js backend, publishing iOS builds through PhoneGap/Cordova, driven by BDD and TDD via Mocha/Sinon and Grunt. A living styleguide and virtualised development environment were added for extra value.

## SYZYGY

May - Jul '14

Contract Front-end Developer

Front-end development for Mazda, MazdaRebels.com, Mazda Offers, Mazda Press Management Site.

Introduced to Stylus, CoffeeScript, headless virtual environments with Vagrant for Node.js workflows.

Extended Vagrant by exploring Puppet (Devops - automated provisioning of environments), driven by RSPEC tests. Created documentation detailing these steps, and also creating a virtual environment for Android Stock Browser testing.

## Handmade Digital

Sep '13 - Apr '14

Contract Full-stack Developer, PHP

Front-end development for BAT and Leaders in Sports brands.

Also tasked to migrate websites from 3rd party suppliers to Wordpress/Drupal CMS engines.

Design and implementation of strategy for BDD testing with SpecFlow.

## Wunderman

Jun - Aug '13

Contract Front-end Developer, Wordpress / PHP

Front-end development for the agency's Jaguar/Land Rover account, PHP updates for Wunderman Wordpress website.

## ★ Colt (NTT Data)

Nov '12 - Apr '13

Contract Full-stack Developer, Java / Ruby

- Fully Agile environment for rapid prototyping and delivery, without regression

Front-end development for Fortune 500 Company Colt, an application to manage cloud-based assets.

Agile project management with weekly sprints - Pair-programming, Continuous Integration, with a very strong focus on BDD and TDD development practices, eliminating regressions with increasing velocity.

## Instant Access Technologies

Aug - Oct '12

Contract Front-end Developer

IAT are currently releasing a product called ePoints, a points-based currency for online stores.

Delivery of refer-a-friend and log-in/registration workflows.

Raising technical debts to help improve the development infrastructure, quality assurance and fault-handling mechanisms.

## Razorfish (Publicis)

Apr - Jul '12

Contract Front-end Developer

Delivery of a fuel-cost calculator, tax calculator and car model comparator RIA for the Audi.co.uk website, alongside regular updates to the main website using jQuery and Backbone.js.

I actively pushed for a stable continuous integration environment with automated deployments to help save the team on costs for the delivery of future projects.

## ioko (KIT Digital)

Jun - Dec '11

Contract Front-end Developer

Delivery of an intranet platform for a global leisure and children's entertainment brand.

JavaScript MVC architecture as part of a scalable RIA platform using Backbone.js, built upon RESTful Java services for desktop, tablet and mobile platforms. A strong focus on DevOps, TDD, unit testing the UI with jsTestDriver and QUnit.

## LBi (Digitas)

Apr - May '11

Contract Front-end Developer

Delivery of two projects for BT, both legally required to pass WCAG2-AA checks for compliance with the Disability Discrimination Act 1995.

A strong focus on accessibility; scalable text, high-contrast design and text-reader enhancements.

Some of the JavaScript would support scenarios of multivariate testing, taxonomy inspection with query-string support.

## **BRANDO (EdC)**

Jan - Feb '11

Contract Full-stack Developer, PHP & Flex

Delivery of a Facebook presence for the mobile network Three, a Drupal-powered FAQ page and Flex / Google Maps store-locator.

Due to the current restrictions within Facebook's Pages platform - the inability to use complex JavaScript libraries, the store-locator had to be built within the Flex4 framework. Fortunately, I was able to draw upon my experience of the Flash platform to deliver this key component, avoiding an unplanned cost of bringing an extra developer to the project.

## **Future Route**

Jul - Oct '10

Contract Full-stack Developer, Java/Spring

Future Route is a financial services start-up, building solutions to help bank account managers and accountants to better understand their clients' "financial health" and allow for the generation of company credit reports.

My primary role was to improve the usability of the flagship product, CreditPal, creating and implementing designs in order to improve conversion rates.

Already familiar to Java platforms, I would be extending functionality on a bespoke MVC pattern, a RESTful web-service API to a PostgreSQL database, Freemarker templates used for views and a jQuery widget framework built on-top.

## **★ Profero**

Oct '09 - Jun '10

Contract Full-stack Developer, C# / PHP

- Implemented source control and CI/CD from own initiative

Lead developer for a 3M Post-it Notes prize reclamation site, managing over 430,000 voucher codes, responsible for the development and code-reviews in a team of three, and also driving many aspects of the project's management.

From my own initiative I would also implement source control with SVN, a CI environment with CruiseControl.NET. Deployments were now automated, using Windows PowerShell, as part of the QA workflow. I then documented the new deployment process and trained other colleagues.

## **★ AKQA (WPP)**

Jul '07 - Oct '09

Senior Front-end Developer

Working on highly-innovative, high-traffic websites, with outstanding creative integrating with .NET and Java stacks..

My responsibilities at AKQA ranged from building simple websites to extensive eCommerce solutions, Facebook RIA/AJAX applications, driving simulators, console applications, PowerShell and build scripts, Bluetooth and RFID tools.

During my tenure I stumbled upon the concept of Microformats and RDFa, the concept of embedding data within a page's content, currently branded as The Semantic Web. From this research I would become an authority on the subject to the department and would often be requested by my peers to expand on the details and concepts.

Through my passion to innovate, to learn new technology and share with others, I was given the opportunity to run weekly knowledge-sharing workshops for the technology department to showcase new and existing trends.

During the current economic crisis I noticed a shift in the business from brand development to measurement and analysis of the service, and from my previous experience, I was able to offer technical knowledge on subjects such as User-Experience, Measurement & Evaluation and SEO/SEM to help further improve our service to the clients.

## **1<sup>st</sup> Contact**

Oct '06 - Jul '07

Senior Full-stack Developer, C# / PHP

Delivery and maintenance of several new business unit websites on both PHP and .NET platforms, working within a team to push for semantic markup, creating accessible and standards-based solutions.

Between projects I would investigate ways to improve the workflow within the team and company. From this initiative I was requested to investigate the implementation of Microsoft Office Sharepoint Services 2007 and also the company's recently-purchased WebTrends product, a website analytics tool.

We would evaluate the sites using WebTrends, continuously tweaking to improve conversions and usability.

## **★ DSI Nexdax**

Jan '02 - Oct '06

Full-stack Developer, C#

Full-stack ASP.NET C# development on many fulfilment systems for the Investment Banking and Tourism industries, e-commerce and content management systems for charities, educational institutions and entertainment venues.

Taking the initiative, I encouraged the shift towards web-standards within the web-development team, leaving conventional table-based layouts by the wayside, and assisting my peers with training.

## **MIS-Global**

Jun - Dec '01

Full-stack Developer, PHP

Web Design & Development, server-side scripting with PHP and MySQL to drive bespoke CMS-enabled websites for SMEs.