

Highwoods Area
Colchester
Essex

Will Riches

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A technology leader with proven experience managing software development teams. A self-starter programming hobbyist with enthusiasm for computer technology, teamwork, teaching, training, entrepreneurship, and the media. Strong in the belief that the best tech professional is forever a student.

12 years of experience developing and maintaining full LAMP stack web applications. Strong written, verbal, and presentational communication skills. Takes a key interest in working with others to solve operational problems, both big and small.

Possesses a wide range of hands-on technology experience including cloud technology, containerisation, web security, e-commerce, concurrent systems, high availability, networking, computer hardware, cryptography, and continuous integration.

Employment

Total Merchandise Limited (June 2018 - Present)

Head of Technology / Technology Lead

I led the planning, development, and execution of multiple prominent technology projects allowing Total Merchandise to expand their dominance in the promotional merchandise sector. These projects included bespoke rewrites of internal CRM systems, numerous website improvement projects, and multiple automation projects. With the release of these projects Total Merchandise is now an industry leader in its use of technology and has seen record growth throughout this period.

During this time I built a team of software developers to allow us to adapt to the rapidly changing needs of the business. I mentored multiple junior developers to a senior level, selecting juniors with the most promise and then working hands-on to develop their skill and quality of work.

As a hands-on technology lead, and later head of technology, I maintained an active role in all projects. Technologies used include Docker, Linux, AWS (EC2, RDS, Lambda), PHP, JavaScript, MySQL, Redis, GitLab CI, PHP, Symfony, React, and Elasticsearch. By keeping hands-on I could further my skills, guide my team better, and pass this knowledge on to them.

To enable my team to maximise their output I was fully responsible for all devops, networking, and hardware tasks. I most recently upgraded the network to 10-Gigabit which also involved configuring 2 PFSense firewalls in a high-availability configuration with failover from a fibre network to VDSL. This was a project that I identified a need for, planned the design, researched the hardware, planned the upgrade schedule, and executed the upgrade with no business impact.

As technology became an increasingly important cornerstone of the business I became responsible for making larger business decisions including the rollout strategies of new projects. I have been responsible for coordinating the software development and release of hundreds of high-impact projects, and thousands of routine deployments on a rapid release schedule. This helped the business remain agile despite the increasing scale of operations.

Total Merchandise gave me a fantastic opportunity to build everything from scratch including the development staff, practices, tools, hardware setup, and codebase. I have developed a wealth of experience by working hands-on with a huge array of technologies and a range of departments throughout the business including sales, marketing, and finance. I remain very proud of the meteoric growth that technology has had within this company.

HouseSimple Limited (May 2017 - June 2018)

PHP Developer

At HouseSimple I had the opportunity to work within small agile teams to develop and maintain large enterprise applications based on the Symfony and Zend PHP frameworks.

HouseSimple made use of Amazon infrastructure such as S3, EC2, and Elasticsearch from which accumulated a wealth of experience.

My primary role was to maintain and replace legacy systems with modern HATEOAS and RESTful APIs. I worked closely with the front-end application developers to integrate these APIs into their work to produce a cohesive and deliverable product. This required expert knowledge of PHP 7, MySQL, and a fundamental understanding of the system architecture.

I also frequently leveraged tools such as Elasticsearch and Kibana to track application performance, this helped aid architectural and business decisions.

I enjoyed working closely with business analysts to develop solutions that solved operational problems in our offices.

This work was very rewarding in that I could see a requirement through from inception to delivery, completion, and retrospective. This frequently involved working in a team where communicating ideas and listening to others' considerations is vital.

In 2017 I was given the opportunity to go to the Symfony Live Conference which aided and inspired my further learning within the rapidly evolving PHP ecosystem. I then implemented my learnings in experimental projects and shared my findings with the team.

Virtual Head Office Ltd (May 2017 - June 2018)

PHP Developer

As the lead project developer I had the responsibility of managing the entire software development lifecycle. I liaised between clients, designers, and management as a part of daily operations. Projects included remote client dedicated server management, bespoke software development, WordPress theme development and site development, e-commerce store creation based on OpenCart, bespoke development in CodeIgniter for a music school, and bespoke web development for a recruitment agency.

Working at Virtual Head Office has given me great experience of working within a business that does not specialise in technology. Due to these reasons, I was required to have excellent written and vocal communication, as well as good planning skills, to be able to convey sometimes technical information effectively, and manage and plan my time effectively.

Designaweb (BSE) Ltd 2011 – 2014

Web Developer

Throughout my three years here, working Saturdays and full-time during holidays, I have had roles in all areas of web development. I came to Designaweb with very little ability, however I taught myself the skills I needed at home to pursue more interesting roles.

I developed my programming skills, specifically in HTML, CSS, JavaScript, and PHP. By 2013 I was the lead developer for an affiliate marketing platform. My main role involved developing websites using the full LAMP stack based on mock designs from the designers.

Aside from my core responsibilities I was also responsible for communicating with clients, in both a customer support role and during client consultation stages. As a general IT enthusiast, I was often asked to install new networking hardware within the office, set up the CCTV system and provide IT support to clients.

Notable Personal Projects

ZeusSkins, 2022

This project involved ingesting large datasets consisting of information related to the cosmetic items in a popular multiplayer game via their API. Items in the multiplayer game have unique properties which determine a particular item's value and rarity. There isn't a first-party database available to search through these properties in the over 1.1 billion skins that exist in player inventories. My project aims to provide a service and user interface to automatically scan, ingest, and display this information to users. This project made use of PostgreSQL, Next.js, React, and Symfony. Due to the large amount of data this project required me to learn about PostgreSQL internals (such as the performance implications of adding particular indexes) to minimise memory usage while still offering quick reads. I also explored SSD caching on Linux to enable faster reads from data that would be otherwise stored on high capacity HDDs.

CDN Project, 2020

A proof of concept implementation of a CDN service making use of Docker to scale multiple instances of Varnish Cache and Elasticsearch to run from a single machine. Includes an API to allow multiple machines to be managed in a clustered environment for horizontal scaling.

MyNanoCoins, 2017 - 2018

During this time I followed developments within the cryptocurrency sphere with great enthusiasm. MyNanoCoins is a web wallet for the cryptocurrency Nano. The implementation consisted of a back-end application that communicates between a JavaScript client and a Nano full-node. This gave me great insight into the architecture of the unique Nano network, and understanding of how cryptography algorithms such as Blake2b can be applied to solve unique problems.

GoCloudy.net, 2014 - 2018

A web and email hosting provider that I developed and established following my experiences with web hosting at Designaweb. Required the development of bespoke tools to deploy virtualised hosting environments using OpenVZ, as well as intricate knowledge of Apache, Nginx, Bind9, Exim4, Dovecot, PHP, and MySQL.

Education and Qualifications

The University of Kent 2014 - 2017

Computer Science BSc First class with Honours

Janet Linington Prize - Exceptional teaching outreach work with King's School Canterbury

King Edward VI School Sixth Form 2012 - 2014

A grade in Computing

A grade in Media Studies

B grade in Business Studies

King Edward VI School 2009 - 2012

A* in ICT

Eight A grades including English, Maths, and Sciences

B in English Literature