STUART ELMORE / FRONT-END DEVELOPER

PERSONAL STATEMENT

I've a passion for creating clean, minimalist and semantic HTML markup with organised, seamless cross-browser styling and interactive engaging interfaces. With a background in Graphic Design I've been able to create such elements from scratch, assist in their development and also take a pre-designed application from mockups and wireframes to complete finished products.

I endeavour to stay on the crest of industry developments and maintain a close eye on acquaintances I've made from technology conferences; such as *Remy Sharp*, *Bruce Lawson* and *John Resig*, to name a few. I'm often to be found at a terminal 'playing' with a new or interesting technology; recently these have included the new (as of yet unreleased) HTML5 specification and new JavaScript APIs, Server Side JavaScript, CSS3 styling additions and hand-crafting jQuery plugins.

Each year I enjoy attending industry conferences, from the global *Future of Web Design* and *@media*, through to the specialist meetings like the Brighton based *Full Frontal Javascript Conference* and the European *DotEU*. As often as possible I attend specific workshops hosted by forerunners in the field to gain first hand knowledge and experiences from the individuals tasked with building the frameworks that my professional and (more often than not) personal lives are being built upon.

My ideal employment position would be working in a team of individuals who strive to increase their knowledge in every project they encounter and who endeavour to explore new and exciting technologies, with the desire to take an idea from inception through to an end product that real-world users will use, enjoy and which will help them improve their day-to-day lifestyle.

EDUCATION & EXPERIENCE

2015 (Jan) - Ebury Partners (London) *as a Front-End Engineer*

> *I was brought on to work directly on the customer facing financial portal which allowed users to create and complete international transactions, for trade companies and Forex purposes. I championed the creation of a "Progressive Enhancement", mobile-first method, supporting mobile devices (including the unusual Opera Mini, thus accounting for server-side rendering in their NOKIA based Opera stack) ahead of tablet and then Desktop browsers (maintaining IE7+). The app was built in Angular on the front-end, connected to a Varnish Cache fronted Node.js API hosted on Amazon AWS, using Docker containers with both manual and Elastic Load Balancing. We worked purely in an Agile Scrum environment, complimenting my Scrum Master qualification.*

2013 (Jun) - Crosslinq Ltd (Milton Keynes) *as a User Interface and Experience Engineer*

> *I was brought on to work at Crosslinq as a development consultant to help increase the accessibility and overall user experience of their bespoke CRM and recruitment software. My role as the Scrum Master helped move the team into an Agile working manner, increasing workflow throughput and reducing the developer - client feedback loop.*
> *One of my tasks included moving the entire codebase onto a private Git repository; enabling each developer to work sandboxed in their own branch before merging and compiling to the master, integrating a new bug reporting system for end users, a build system and also the creation of a test and build system that utilised a unit test schedule.*
> *I worked mainly with a custom PHP framework, creating pure Javascript interactions on top of a HTML5 UI. There were also Node.js servers built onto Raspberry Pis that were to be distributed across the country with biometric readers to enable real-time tracking of users at 'log-in' stations. These servers would automatically 'dial home' to check for updates daily, before updating themselves autonomously.*

2013 (Jan) - Certified Scrum Master

> *I was taught by Jim Coplien - one of the founding members of the Hillside Group - a group dedicated to improving the quality of software development and improving the Agile Manifesto.*

2012 (Oct) - Skype (London) *as a Software Development Engineer*

> *I transferred from Microsoft Research to join a team constructing a new version of the Skype client for desktop and mobile, and to support and continue to develop the login systems behind the desktop clients.*
> *My main duties involved supporting legacy codebases whilst working in a scrum team to build new prototypes of the Skype client using the Backbone MVVM framework. I was also pivotal in providing in-house monitoring systems using Node.js and C# that would notify us of usage spikes and potential issues arising from long code execution time.*

2010 (Oct) - Microsoft Research Ltd. (Cambridge) *as a Software Engineer*

> *In October 2010 I joined Microsoft Research as part of the Bing Personalisation Team. I was charged with creating a complete user experience for a personalised news aggregator that would be based within a web browser. The team I worked with were prized for their rapid prototyping abilities, skills that lead to the production of a collection of other research projects (mainly internal) that I also designed and built full user interfaces for.*
> *In September 2011, I joined two new teams; the Computer Mediated Living (CML) team and the Bing Research team who are tasked with optimising algorithms for advertising on Bing.com, for whom I helped create a collection of internal performance tools. I split my time with the Computer Mediated Living team who create research projects based around human interaction with computers. One of the projects I worked on involved creating Javascript libraries for gesture controls and to allow for a custom Time definition, allowing the system to use 'fuzzy dates' that could span millennia rather than a specific timestamp.*

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EDUCATION & EXPERIENCE

2009 (Aug) - Bluestone Creative Ltd. (Peterborough) *as a Front End Engineer*

After finding a re-ignited passion for web development and interactivity, I created a handful of bespoke web applications, both to be sold to the company's clients and to be used internally as production and performance tools.
My knowledge grew very rapidly in front end technologies: XHTML, CSS and most importantly JavaScript. Within 4 months I was asked to create the front-end user interface of a new Content Management System, based entirely around the idea of inline editing and user-customisation.

2008 (Feb) - e4education (Peterborough) *as a Web Designer*

I joined as a Junior Web Designer, but quickly established myself as a competent and talented designer, creating in excess of 50 unique and bespoke websites in 12 months.

2007 - Graduated from University of Portsmouth *with BA (Hons) in Communication Design (2:1)*

2007 - Freelance *as a Web Designer and Developer*

After graduating from University I spent around 8 months freelancing for individuals, creating personal and corporate websites. In an effort to assist my clients in maintaining their websites, I designed and built a Content Management System (CMS) from scratch using Microsoft's VBScript-based (Vanilla) ASP on IIS 6 and a sprinkling of JavaScript.
The CMS built for these clients ran from a MySQL server, but has now been replaced chiefly with Wordpress conversions with commerce plugins.

2006 - Ken Vale Graphic Design (Cambridge) *as a Graphic / Interaction Designer and Layout Junior*

Key roles included: designing creative layouts for educational books and leaflets published nationwide; design and management of screen based interactive projects for both online-delivery and all-in-one packaged applications. I also produced multiple interactive CD-ROMs (built in Adobe Flash and XHTML) that were used as a teaching tool accompanying secondary school (mainly A-Level) text books for the national publisher Folens.

2004 - Completed College after studying Foundation Art

2003 - Constructed the first version of personal website using Microsoft Notepad in HTML4

TECHNOLOGICAL ABILITY, SKILLS AND INTERESTS

Scrum & Agile *(Scrum member: 2 years, Certified Scrum Master)*

Server Side Scripting *(PHP: 2 years, Server-Side JavaScript: 2 years, C#: 6 months)*

Before ASP.NET was announced, I had been experimenting in ASP VB Script and MS Access databases, and in 2006 I finished writing my first CMS. It was designed to power a small blog filled with my thoughts and ideas, along with a small portfolio of work.

That first CMS helped me gain some interest from potential clients and within a couple of months I had optimised and streamlined it, created a smooth user interface and converted it to a MySQL server. This prompted my first purchase of professional web hosting. Within a year I had ordered a Virtualised Private Server in a data centre in London and accustomed myself with the workings of MS Server 2003 and IIS 6.

In my time working for Microsoft, I began learning C# for the development of Windows Phone 7 applications and for .NET Gadgeteer. Working with a strictly typed language feels very natural and the true object-orientation methods employed by C# have led me to push my JavaScript knowledge further and now also code in CoffeeScript thanks to it's beautiful syntax.

I also helped to bring the Microsoft Anode project to fruition as a beta-tester. This involved porting node.js to C# and allowing it to be published to their cloud system, Azure. I created many projects with node.js on the Azure stack, including some fun experiments including multiplayer real-time gaming using websockets (and the COMET fallback system).

I also now run a set of servers in the Rackspace cloud stack in London, where I provide web hosting, email management (using some custom written parsers and filters) and I even manage a few powerful online gaming servers for other clients. These servers are running various variants of Linux, including Ubuntu and RedHat.

In the last year I have built a new build server for my team at Crosslinq to deploy new versions of the software directly to each stage of publication: development, staging and live. This allowed us to run a set bank of unit tests against the code autonomously thanks to check-in triggers on the self-hosted private Git repository. The Git repository runs alongside a bug tracking system and wiki that provided the means to fully document the code base and APIs involved with the development.

I prefer to build systems using a Test-Driven approach, and have been doing so for some time. Mainly I utilise the Jasmine test framework, which we studied at Skype and tried to push it to it's limits. I also helped integrate it into Grunt with Ant as our build system, and more latterly using the Bamboo system from Atlassian, which used a selection of Git commit hooks to build the system automatically.

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TECHNOLOGICAL ABILITY, SKILLS AND INTERESTS

(x)HTML & CSS *(HTML4 : 11 years, xHTML1.0 & XML: 7 years, CSS (inc. XSLT): 9 years, HTML5: 3 years)*

My first experience of HTML involved a pen and a notepad, whilst sat outside in my parents' garden at the age of 14. After that brief glimpse at the code behind the internet, it wasn't for another four years that I once again began thinking in code.

It was HTML4 that I learnt to program with. I appreciated it's unforgiving strictness as it helped me to understand the importance of valid, standards-based code.

In 2003 (and with an enterprising mind) I stopped playing with HTML tables and wrote my first website using CSS, using it as a method for advertising a computer building service. This, however, introduced me to designing websites for individuals and small businesses and quickly I grew to love the code I wrote.

Years on, and having progressed from HTML4 to xHTML1.0 and now developing heavily with HTML5 and it's associated APIs, I'm so glad that I learnt CSS so early, and that in a way have grown up with it. This almost ingrained knowledge has promoted me to a CSS fixer position amongst my peers, with me helping solve markup problems and ideas over interfaces like Twitter and JSBin on a regular basis.

My passion for web development, design and layout came to the foreground when in my final year at University I spent 4 months teaching a collection of students how to effectively use HTML and CSS. I structured lessons to build up knowledge and understanding from a complete novice level through to an advanced position where we would discuss best practices and semantics.

I am also very strongly opinionated about accessibility with semantics, which pushes me to aim for AAA Level conformance to the W3's guidelines. This, however, rarely restricts me when prototyping - the Agile foundation has taught me the values around failing fast and iteration in order to get the highest quality product possible.

Since working within a number of Scrum teams, I have also found myself to be more disciplined and strong willed around the practices and understanding of the Agile methodology. After training to be a certified Scrum master this passion for discipline and structure has been emboldened.

JavaScript *(Vanilla JavaScript: 6 years, jQuery: 4 years, Prototype / D3 / DoJo: 9 months)*

When I originally set out on my career ladder, I was mainly interested in design, thanks in part to my degree in Communication Design from the University of Portsmouth. However, after a year of designing websites commercially,
I decided to show my employer the work that I had been undertaking in my own time. I unveiled to them a new system that I had constructed that I hoped would assist in the management of new and existing clients in our company. The "Client List", as it became known, is now an essential part of the company's core structure, and has helped organise the entire business into a structured process.

The "Client List" was created using a small amount of server-side script and a lot of JavaScript. Looking back a couple of months after it's initial implementation I realised how messy and unorganised my original code was. This then prompted me to study best-practices and begin re-structuring and optimising my code.

I've found that learning new languages is organic: what may seem like the best method of achieving one task may be improved further down the line and so I use it as an opportunity to re-write or re-structure chunks of code as I learn faster, cleaner techniques.

My employer was so impressed with the projects I had undertaken that they asked me to build the front-end of a brand new Content Management System that would be provided to a user-base of over 800 active clients. I was to organise and architect the best, most efficient ways of accomplishing my goals, using Agile techniques for building and testing, and to organise a team to assist me.

Thanks to my successes on the CMS project, I've been privileged to have worked on web-app based projects for clients such as the NHS, Kraft Foods, Bauer Media Group (magazines such as CAR and Rail) and also the Specialist Schools and Academies Trust, where I provided consultancy and development for a new nationwide media platform.

In my own time I've also been expanding my knowledge of JavaScript APIs, specifically to do with HTML5 and popular web-apps. I've also been experimenting with Server Side Javascript, thanks to Node.JS and have been actively discussing options and ideas with core developers. I hope to continue this personal development and hopefully help to contribute further to open source projects.

Working with Microsoft on some internal research projects, and also with Skype, I helped to create projects using Backbone.js to abide by the Model-View structure for front-end development. I was also on a team whereby we were tasked with creating our own bespoke alternative to existing frameworks. It allowed me to gain insightful knowledge around object orientated frameworks and exactly how they work and how to deal with pitfalls that may emerge.

Whilst at Skype I created a selection of large data 'dashboards' to monitor uptime, team scrum tickets, script execution times, support tickets and users per minute over regions all using the D3 JavaScript library to display the data. These graphs and documents were displayed on plasma screens around the office and scrum areas, allowing us to get a quick overview of exactly what was happening on the network.

Upon Joining the team at Crosslinq I took the role of Scrum co-ordinator; allowing me to both arrange the workload for the Agile sprints and to work on the Javascript codebase. I created many large and complex functions, including a complete calendar and planner feature that would dynamically display events to a sympathetic grid, allowing for large amounts of entries on many different view types. I also wrote a 'dashboard' system and built custom framework that would allow an end user, through a simple user interface, to create widgets for their custom dashboard without having to write any code. Unit tests were necessary for such a big project and regression tests had to be introduced as the project evolved through various iterations. These tests were run through the Jasmine library.

Another part of the work at Crosslinq was finding and implementing solutions for real-time user logging. The system would be built to withstand tens of thousands of concurrent users with full load balancing. I decided on using Node.js for this task as the native socket communication would provide a perfect platform to fulfil these real-time needs, and would run exceptionally well with very little overhead on the Raspberry Pi (Model B) devices we would be deploying to. These Raspberry Pi devices also ran connected to biometric devices such as fingerprint and palm scanners and would display instructions to users on a LCD Matrix display unit which the Javascript would need access to.