Curriculum Vitae - Dr Graham Gilchrist

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Professional Summary

Graham is an experienced front-end developer with over 12 years experience in all aspects of web development including front-end engineering and layout, server-side languages, databases, server operations, code quality and testing. He has strong problem-solving and innovating skills and is a quick learner. He is an experienced technical leader and is able to manage the quality of a project whilst meeting project milestones. Enjoys mentoring junior team members and has a keen eye for design. Seeking a role in a technical startup where he can stretch his technical skills and emphasise product quality.

Skills and Experience

- Javascript Extensive javascript experience creating sites and single-page apps using frameworks
 (Angular, Backbone). Experienced using browser debug tools. Considerable experience using native
 javascript and libraries to interact with server-side APIs via AJAX, including debugging AJAX requests,
 security concerns (CORS), authentication, and data transfer formats such as JSON and XML.
- Front-end development Expert at building standards-compliant websites using HTML, CSS and
 JavaScript. Can take a flat design to a CSS standards compliant website quickly and accurately. Strong
 knowledge of cross-browser compatibility issues and using build tools such as Sass and Gulp. Able to
 create wireframes and discuss and advise on usability and interface issues with designers and clients.
- Server-side development Strong experience developing database driven websites, especially using
 Python, PHP, NodeJS and VB.NET. Understanding of good application architecture, object oriented
 programming, Model View Controller principles and version control systems. Have a good knowledge of
 SQL, and is happy constructing database queries and designing database schemas. Knowledge of
 database performance issues and techniques for optimising for scale.
- Communication Adept at communicating at all levels and disciplines, including report writing and
 presentations. Can adjust tone and level of communication to reflect end audience and am often
 required to communicate technical concepts to sales staff, clients or designers.
- Technical leadership Led and worked in teams with designers, developers and clients. Can analyse
 and identify appropriate needs and technologies for particular projects. Described as a "safe pair of
 hands" that can be relied upon to deliver to deadlines. Sets and maintain code quality and consistency
 standards. A quick learner and can adapt and learn whatever is needed for a particular project. Always
 able to find technical solutions through creative thinking.
- Additional skills: Version control systems (Git), automated testing and continuous integration, Web server setup (LAMP and Microsoft), Photoshop and digital graphics.

Professional highlights

- Architecture and build of a real-time audience interaction voting system at Open Health for use during medical presentations, utilising node.js backend, websockets and a custom javascript frontend.
- Rapid prototyping of an AR iPad app to show the effects of eye disease. Built from the initial brief in two
 days using HTML5 canvas, iPad camera and Apache Cordova. Produced a quality product combining
 new technologies to an aggressive deadline and impressed the client to commission a full project.
- Heavily contributing to the main product at Incuna, which was a single-page javascript app built in AngularJS, communicating with a custom Python API built in Django. Had a strong hand in the database design, JSON API specification and AngularJS module design. Also learned and made use of the d3.js mathematical visualisation library to present medical data in novel ways.
- Presenting to 300 strong audience of peers at "The Lead Developer" conference, discussing the use of Docker for standardising internal team development environments.

Career Details

- Built entire development team and process at Open Health from scratch, instituting technical practices for deployment, code review, automated testing, code standards, and project management.
- Lead developer for team of six developers, involved in all aspects of projects including agile project management, technical architecture design, programming, deployment and server management.

Lead Developer - Incuna Ltd: December 2011 - November 2015

- Worked on a multitude of tasks and technologies including Python/Django websites, single page web apps for desktop and mobile using javascript frameworks such as AngularJS and backbone.JS
- Pioneered the use of development tools such as Grunt and Docker to automate and speed up tasks during project setup and development, resulting in greater team throughput and efficiency.
- Responsible for ensuring code quality for front-end team. Introduced automated front-end code quality tests and style guides to help with consistency, maintainability and stability of code.
- Supervisory role for team of 6+ front-end developers. Constantly mentoring and training team members with a wide range of skill levels and personalities. A departing team member once told me "I learned more from you than the last 10 years of coding".
- Built fast prototypes for pitches or demonstrations, including a browser based interactive 3D molecule visualisation utilising the three.js javascript library and webGL.

Drupal Web Developer - Torchbox Ltd: April 2011 - December 2011

- Scoped, planned and developed modules and features for Drupal. Owned projects and features end-to-end. Quickly mastered custom Python build system.
- Applied Agile project management methodologies including Kanban and feature-driven development.
- Lead developer for largest Drupal site in country (www.csp.org.uk). Performed performance
 optimisations to improve page load speed across the technology stack at database, code and server
 level. Made frequent client visits and exemplary communication made me the main client contact.

Lead Developer - Subject Centre for Languages: Feb 2009 - April 2011

- Advised on UX and accessibility best practice, and gave strategic advice on emerging technologies.
- Project managed, coded and delivered a web-based CRM for a major government project requiring complex MySQL database design. Significant usability efforts allowed remote staff to use the system, providing business efficiencies. Demonstrated project planning and delivering on schedule.
- Fully designed and developed a windows app and online system for non-technical academics to create
 e-learning materials. Utilised a javascript frontend communicating with a VB.NET backend. Highly
 successful and was in use across the country by hundreds of academics.

Web Developer - Subject Centre for Languages, The Higher Education Academy: Feb 2007 - Feb 2009

 Demonstrated ability to learn quickly and understand legacy .NET code as well as learn new open source Drupal system during migration of legacy CMS code for website update project.

Web Consultant - School Of Physics and Astronomy, University of Southampton: 2003 - Sep 2006

• Advised and implemented usability and accessibility improvements and advised on best practice.

Education & Qualifications

2003–2006: **Doctorate (PhD)** – University of Southampton

Thesis Title: Surface Effects in Liquid Crystal-Polymer Structures

- Research on surface effects in liquid crystal cells with considerable practical application for low-cost optical switches for telecommunications. The project was heavily reliant on computer modelling and simulation which required in-depth mathematical programming and data manipulation using MATLAB
- **Key Skills:** Working under pressure to deadlines, self-motivation and task planning, working in a team, presentations/seminars of 30+ minutes and poster design and presentation.

1999 -2003: MPhys Physics Masters Degree, Upper Second Class Honours - University of Southampton

- Included programming, presentation skills and report writing in the form of a three month dissertation
- Final year project received a first class equivalent grade

2010: **ITIL V3 Foundation certificate**: Project and business IT management – British Computer Society. 1997-1999: **3 A-levels**; Computing (A), Physics (B) and Maths (B), Taunton's College, Southampton 1996–1997: **9 GCSE's**; 2 A*'s, 1 A, 4 B's and 2 C's. Hethersett High School, Norwich, UK.