

I am an engineering lead with experience in both academic and commercial software development environments throughout the development lifecycle. My broad set of skills allow me to not only take a holistic view of problems presented to me and propose appropriate solutions (not always software!), but also follow through and see the solution through implementation and to completion.

I am interested in leadership roles (Development Manager, Head of Engineering) that give me the opportunity to get involved in steering the development of products and services, and in return I offer someone with ambition and passion for making positive changes, who will leave things better than they found them.

Summary

- Systems-thinking engineer - quick to acquire and utilise new skills, able to address software, people and process needs.
- Highly motivated and customer-focused - loves to learn and share ideas, will get involved in the business at all levels, and his personal satisfaction is measured on the successful completion and delivery of solutions.
- Platforms - Linux and embedded variants, web site and application programming on dedicated and shared hosting, IaaS (AWS, some Google Cloud Platform), Docker, Kubernetes, MVC pattern & frameworks. Open source believer.
- Methodologies - Agile processes with Scrum, infrastructure-as-code, continuous integration, continuous improvement (ISO9001).
- Tools – programming (Java, C++, Perl, some Ruby, some Python), scripting (bash / shell), data analysis (Matlab/Octave, lots of whiteboard time), source control (SVN, git), automation tools (makefiles, doxygen, some puppet, Jenkins), workflow (Trello, Jira).

Experience

Smoothwall Ltd – Development Team Manager

May 2016 – Present

- Responsible for the delivery of 2 engineering teams (7 direct reports), providing behavioural, process and technical leadership, often requiring taking ownership of team-impacting problems and their resolution.
- Moved both teams from a position of poor estimation, rough delivery schedules and technical demos to regularly delivering on their sprint commitments, capable of making reasonable estimations on a ~3 month release cycle and providing customer focused demos (~1 star on the Agile Fluency model).
- Encouraged a strong 1-1 culture, which lead to growing team members individually (both behaviour and technical skill), and positively impacting the team's ability to deliver.
- Provided agile coaching to both teams and the Product Owner (especially around user stories), getting both team and PO to concentrate on the customer value that's being provided.
- Managed the JIRA trial, including workflow assessment, implementation and department-wide training. This is now implemented and in daily use over the whole department (~40 people), with the metrics from this system being used to drive business decisions.
- Developed the proposal for introducing “product area ownership” into the department, enabling teams to more effectively own and improve parts of the product, and improving the quality of the whole system.
- Ran a weekly lunch & learn to promote continuous learning about more than just technology (including leadership, diversity, giving feedback and the agile process).

Smoothwall Ltd – Head of Development

November 2015 – May 2016

- 1/3 of the management team running the Engineering department (~35 engineers), continuing to hold software architecture duties around technology decisions and dispute arbitration.
- Improving the team delivery reliability by coaching the scrum master team.
- Wrote the 2016 agile process, reviewing both engineering and technical practices, including the 2016 engineering manifesto and introduced team charters, aligning the department for the start of the year.
- Hired 2 new UI/UX team members in response to Product's needs, ensuring a complimentary mix of skills.
- Product Owner for the teams who replaced the underlying operating system of the core product (custom OS → Debian Jessie), built a replacement buildsystem (Docker, Jenkins, git), built the first pass of the company's first cloud product (Docker, Google Cloud Platform, Kubernetes, github).
- Provided architecture support for the first cloud product, aligning the teams on the vision, then helping make technology tradeoffs, and writing the development process and starting a new architecture manual.
- Mentored a senior developer into a management role of his own.

Smoothwall Ltd – Software Architect

March 2014 – November 2015

- Responsible for the technology decisions and non-functional requirements around the sole product, including arbitrating disputes and reporting team health and technology status to management.
- Wrote the architecture manual, and extensively updated the departmental documentation.
- Revised the developer process documentation, reducing the time-to-feel-useful of new team members from 2 weeks to 1 day.
- Justified and wrote the user stories for a replacement UI framework (Perl CGI, MooTools, CSS → Dancer2, jQuery, sass) and proper pattern library.
- Hired the company's first dedicated front-end engineer, who undertook extending the UI framework.
- Advocated for, built and was Product Owner for the Platform team, successfully replacing the update system (homebrew → apt backed by S3), and the filesystem type (ext4 → btrfs).
- Introduced the idea of “roles” into the company (additional responsibilities such as scrum master, supervisor and technical lead) to provide more department structure and better employee opportunities.
- Provided agile coaching to the scrum master team.

Smoothwall Ltd – Software Engineer

November 2012 – March 2014

- Developed code based on the Product Owner's vision, in an agile team. (C++, Perl, HTML, CSS, MooTools, jQuery)
- Engaged in grass-roots leadership to form, lead and educate a working group in UI framework options (how MVC works, what not to do with it), subsequently provided a business case for change vs doing nothing for a UI framework.
- Lead the evaluation of cloud providers and then lead the design and construction of a product evaluation platform. (AWS EC2, Perl Dancer2)
- Lead the evaluation of 5-figure performance test equipment, now purchased and in daily use.

Moog-Insensys Ltd – Software Engineer*November 2009 – November 2012*

- Responsible for automating the testing of a highly complex embedded system, reducing the time-to-release from 4 weeks to 1 week.
- Acted as deputy R&D Manager, also interviewed and supervised 3 summer interns and a test engineer.
- Took responsibility for many projects as their project managers moved on to new projects and companies.
- Performed data analysis, built several quality- and test-related systems, an asset-management system, web dashboards and APIs for data access and manipulation of proprietary storage formats. (php, MSSQL, SVN, LabVIEW, Octave)
- Got involved in the Quality Committee, and helped retain ISO9001 accreditation by providing exemplar projects. My involvement in these projects included the requirement capture, architecture, project-, test- and user-level documentation (Java, php, C++, MFC, C#).

UltraSoC Technologies – Software Engineer*January 2009 – July 2009*

- Provided the initial architecture and the development of debug software surrounding UltraSoC's UltraDebug silicon IP, delivered on time under a tight deadline for demonstration. (Eclipse, GDB, C++, SVN)

University of Essex – Senior Research Officer*May 2006 – December 2008*

- Constructed a prototype of a AI-driven system-level debug solution for satellite nodes, based on using self-organising maps for anomaly detection. (C++, git)
- Authored 2 peer-reviewed papers, and collaboration on a third, based on the prototype.
- Supervised both undergraduate and postgraduate students during laboratory sessions and projects, maintained the students' Embedded Systems coursework and course material.

University of Kent – Research Assistant*May 2005 – May 2006*

- Constructed and published a paper on a parallel optical transmitter for SoC diagnostic data with FPGAs. (ModelSim, Xilinx ISE, VHDL)

Education

University of Kent	MSc by Research – Optoelectronic Measurement Interface	2006 - 2007
University of Kent	BEng Honours (2:1) Computer Systems Engineering	2001 - 2005

Interests and Hobbies

When I'm not caring about technology and people improvement, I can be found making music or at the gym lifting heavy things.