Thomas J. Taylor

web application programmer

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About

Full-stack web developer with 6 years professional experience currently working full-time on a global open-source digital learning project, but always on the look-out for exciting new opportunities.

I am highly adaptable; my technical programming background is balanced with an eye for good design and an attention for detail. I also have an excellent work ethic, which comes from having a passion for what I do; I thrive on the challenge of using new technologies to develop engaging products that put the user at the heart, and give enjoyment in simply being used.

I have considerable experience in leadership roles, both from a technical perspective leading small development teams, as well as from a more cross-discipline product ownership standpoint. I pride myself in my ability to develop good respectful relationships with my team; a strong team bond has always been at the heart of my greatest successes.

Skills

Web development: HTML, CSS (& LESS), JS (ES6+, Node.js, Vue.js), NoSQL (MongoDB), automated testing & TDD (CasperJS, Mocha), CI (Travis).

Misc: Requirements analysis, specification definition, software architecture, product ownership, project management, VCS (Git, Subversion), document preparation (LATEX).

Hobbies & Interests

User experience, digital learning, ethical software practices, open-source software, clean code(!) Black coffee, photography, Japan, Leicester City F.C. fitness, The Rebel Alliance.

Education

2008–2012 Bachelor of Science - University of Brighton, East Sussex.

Computer Science (Games) with first-class honours.

Major project: An experiment into using academic machine learning techniques in a game context. Developed in Objective-C for iOS4 using the Cocos2D game engine.

Source code available at github.com/taylortom/cogito.

Modules studied: Concurrency and Client-Server Computing, Advanced AI, Computer Graphics Algorithms, Object-Oriented Software Design, Computer Systems Architecture, Mathematics, Human Computer Interaction, Requirements Analysis.

2006–2008 A-level - Wreake Valley Community College, Leicestershire.

A2: Graphics with Materials Technology (A), English Literature (B), Biology (C)

AS: Chemistry (C), General Studies (C).

2004–2006 GCSE - Wreake Valley Community College, Leicestershire.

Mathematics (A), Double Science (AA), English Literature (A), English Language (B), I.T. (A), Business & Communication Systems (A*), Business Studies (A), Graphic Products (A), R.E. (A), Music (B), French (B), German (C), Humanities (A).

Professional Experience

Nov 2014 – Present

Open-source Learning Technologies Developer - Kineo

Role as a lead developer on the Adapt project's Node.js-based authoring tool.

I lead the development and product ownership of the authoring tool both on the FOSS Adapt project and at Kineo. This means driving the roadmap and architecting new features/core changes, organising meetings, liaising with and managing contributors, and the direct development of features/bug-fixes. Internally at Kineo, I'm also regularly involved in proposal-level meetings to discuss requirements with clients, as well as maintaining client installs on our Linux (Ubuntu) servers.

Community engagement is another major aspect to my role. I am involved in on-boarding and training both internal and external staff; organising, attending and presenting at community events; engaging the community directly to garner feedback and drive new feature development. This community aspect to my role (particularly from the open-source side) is very important to me, as I get to have a unique relationship with our end-users.

Personal accomplishments

- Formalised Adapt's development workflow (based on elements of Agile & git flow). Also involved documenting 'rules', and enforcing these with CI tools where appropriate.
- Led Kineo's adoption of the Adapt authoring tool internally, which required considerable development work as well as both internal and external knowledge-sharing.
- Led the re-architecture of the authoring tool, which involved identifying areas of
 weakness, proposing and documenting solutions, and implementing those solutions
 (directly and by managing working groups for individual areas) still at a prototypal state.

I get much enjoyment out of working on the Adapt project, due in part to its ethical core principles, but also the satisfaction of working on a product that's both valued by its users and also forcing a change in the learning industry as a whole.

Jul 2012 – Oct 2014

Technical Consultant - Kineo

Role as an ActionScript 2/3 and later JavaScript developer working on digital learning courses for many high-profile private and public sector clients.

Junior TC: Jul 2012 – May 2013

Student Placement: Jul 2010 – Aug 2011 I was responsible for many client projects, from the requirements analysis and solution architecture to development and bug-fixing. I developed an ability to thrive under high pressure during this role due to our usually very short development cycles.

My greatest accomplishment in this role was to architect and build a complex data-visualisation widget using HTML5 and Canvas in an award-winning flagship project for City & Guilds. A significant part of this task was the R&D and subsequent identification of appropriate technologies and tools, which weren't used at all by the development team at the time.

Code examples

Adapt authoring tool rewrite

Tech used: Node.js, Express, ES6, ESDoc

A prototype for a modular approach to the architecture of the Node.js-based elearning authoring tool. The main goal was to allow easier customisation and extension of the core application, in addition to improving the maintainability and accessibility of the codebase, particularly for new developers.

The list of 'core' modules used in the prototype can be found in the package.json dependencies.

Source: github, documentation: via esdoc, supporting docs: github

Static website generator

Tech used: Node.js, Handlebars

A Node.js-based CLI for generating simple static websites (used for my personal website). The site content is written in markdown and handlebars and styled with LESS. This is all boiled down by the CLI into static HTML pages with CSS.

I also built a prototype electron-based app which acts as a front-end app for my static site CLI (source available on github).

Source: github, output example: tomtaylor.name

Card sort

Tech used: interact.js, jQuery

A simple web-app for online card sorting activities. Has a drag and drop interface courtesy of interact.js, and basic state saving via local storage.

Source: github, demo: code.tomtaylor.name/card-sort

Newsflash

Tech used: Node.js, Vue.js, Webpack, LESS

A unnecessarily extravagant 'Hello World'-type experiment using Vue.js and Webpack. Displays a number of JSON news feeds.

Source: github, demo: newsflash.tomtaylor.name

References

Available on request.