

David Wilhelm

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I am a web application developer specializing in front-end engineering and JavaScript programming. I also have a good deal of experience with server-side programming and web design in general. I am particularly interested in graphics programming in the browser, and have developed several interactive visual applications using HTML5 Canvas.

Skills

- HTML, CSS, JavaScript, XML, PHP, SQL, Bash, ActionScript, Ruby
- JavaScript frameworks: Angular, jQuery, Backbone, Bootstrap, Ext JS (Sencha), Dojo, React
- Javascript unit-testing frameworks: Mocha, Jasmine
- End to end acceptance testing with Selenium, Protractor, and Cucumber
- Setup and configuration of Linux, Apache, Mysql, PHP for development/production
- Database design and administration: MySQL, MongoDB
- Knowledge of HTTP Protocol details, Cookies, web-security issues
- Effective use of version control with Git, SVN, Perforce
- Advanced use of debugging tools, eg. Firebug, Chrome developer tools
- Experience with Agile methodology (Scrum + Lean/XP)
- Knowledge of OOP, design patterns, functional programming, and other paradigms
- Good understanding of programming principles and best-practices
- Use of build tools to automate linting, testing, optimization
- Unix environment: commands, shortcuts, configuration, SSH, Tmux
- Vim expert -- have written several plugins
- Graphic design and production with Illustrator & PhotoShop
- Experience with Flash and Flex, ActionScript programming

Employment Experience

McAfee / Intel Security (2014 - 2015)

- Developed many new Cross-Device features according to UX specifications
- Implement features on time within 2-week sprints

- Significantly improved performance of load time and navigation
- Cleared backlog of 50+ legacy bugs in UI
- Wrote 800+ unit tests, covering new features
- Used Powershell for Windows scripting and build automation
- Developed custom interactive components using in-house JavaScript framework
- Developed UI features with externalized strings for L10N, and adjust layout for RTL locales

Senior JavaScript Developer, CleverTech (2014 -- Contractor)

- Building web applications using Angular.js, Node.js
- Bootstrap customization
- Project Management: creating, tracking milestones & issues
- Communication with client to determine features

Software Developer, Exinda Networks (2012 - 2013)

- Developed new HTML5 UI for Central Management System with REST API
- Used jQuery, Underscore, Backbone, Bootstrap, RequireJS, Handlebars
- Implemented required features with attention to detail and user experience
- Wrote unit tests, and ensured high coverage level
- Documented development and deployment best practices
- Worked with backend developers to effectively design and work with REST API
- Ensured security of web application from various attacks, such as XSS
- Optimized performance of deployed web application
- Maintained build tools based on Node.js and Grunt
- Created themes for the application using Less and Bootstrap
- Collaborated with other team members to solve design and implementation issues
- Setup Jenkins jobs and flows for continuous integration and testing
- Fixed issues in legacy Apache/Mysql/PHP application
- Wrote and maintained Cucumber automated acceptance tests
- Wrote Bash scripts to automate routine tasks, eg dev setup and deployment
- Became known for ability to solve git conundrums

UI Developer, Blue Coat Systems (2007-2012)

Central Management

- Worked on UI for Central Management of multiple deployed appliances
- Used Ext JS for UI development

- Configured application to use RESTful API
- Behaviour driven development with Jasmine and Cucumber frameworks

ProxyOne Project

- Developed the user interface for a new network security appliance using ExtJS
- Worked as part of cross-functional team
- Ensured high performance of deployed application by writing scripts to compress

WAN Optimization

- Developed the user interface for the company's network acceleration product
- Used Adobe Flex and ActionScript 3 for application development
- Implemented datavisualization of network traffic using Flex Charting
- Worked on device dashboard with real-time network monitoring and alerts
- Designed and implemented solutions to complex requirements, eg. forms with complex cross-field validation
- Implemented a Comet client in ActionScript 3

Next Generation Management Interface

- Research and development for this was done using the Dojo JavaScript Toolkit
- Training in Dojo development was received from Dojo founder Alex Russell in 3 day workshop

Web Designer, Tucows Inc (2007, Toronto)

- Maintained and updated corporate websites
- Redesigned and developed site navigation
- Maintained Wordpress-based blogs and customized appearance and functionality
- Designed and produced marketing materials for web and print

Web Designer, TrueLocal (2005-7)

- Developed custom Ajax draggable maps application for use in local search engine website
- Designed and maintained TrueLocal search engine website
- Hand coded HTML and CSS for optimal performance and SEO
- Applied cross-browser testing of product and fixed bugs
- Designed customer account administration interface
- Designed and produced ads (print and screen)
- Maintained corporate style guide and visual assets
- Designed and produced multimedia marketing materials for conferences

Juju Web Design (2001-2014)

- Designed and developed over a dozen sites
- See [online portfolio](#) for links to sites
- Consulted with clients to determine requirements, budget, timelines
- Developed dynamic Flash based websites with custom interactivity and rich media
- Integrated and customized open-source PHP applications
- Designed and produced print ads and other marketing materials
- Designed logos in consultation with clients
- Integrated and customized 3rd party open-source PHP applications for backend
- Provided content management facility for clients

Education & Training

- jQuery TO conference, Toronto, 2013, 2014
- jQuery workshop with Ben Alman
- Completed Stanford-level online Artificial Intelligence Course
- Wrote tutorial for Ext JS Documentation
- Sencha Conference, San Francisco, 2010
- Week of XP / Lean Software Development training with Matt Hargett
- FITC (Flash in the Can) conference, Toronto, 2009.
- 360Flex conference, San Jose, 2008.
- Dojo 3-day training workshop, 2008 (by SitePen, with Alex Russell)
- Search Engine Strategies conference, New Orleans, 2005
- Web Site Design Specialist diploma, TRIOS college, Kitchener, 2001
- French and Philosophy, Trent University, Peterborough

Demos and Links

- Developed JavaScript and HTML5 Canvas arcade game framework using ExtJS: [play Asteroids](#) (use Left/Right arrow keys to steer, up-arrow to thrust, down-arrow is hyperspace, space to fire)
- Canvas and JavaScript implementation of Conway's [Game of Life](#) in under 10KB.
- Developed HTML5 Canvas [Turtle graphics environment](#) for 10K Apart JavaScript competition
- Designed and developed database-driven photography portfolio website: <http://katewilhelm.ca>
- [Blog](#) showcasing some of my code experiments, tutorials, and other work
- [Portfolio](#) of websites and other design work