

Brian Cavalier

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Open Source Projects

[wire.js](#)

A light, fast, flexible Javascript IOC container with a powerful plugin API for adding new functionality and integrating with existing frameworks.

[aop.js](#)

Aspect Oriented Programming for Javascript with before, on, around, afterReturning, afterThrowing, and after (finally) advice.

[robo.js](#)

Promise-aware, asynchronous finite state automata.

[when.js](#)

CommonJS Promises/A and when() implementation, with other async helpers like when.all, when.map, when.reduce, and more.

[canhaz](#)

A simple, extensible, project bootstrapping and boilerplate generation tool.

Projects @ Hovercraft Studios

Nov. 2010 – present: Web Application Architecture Consultant, [LifeIMAGE](#), *Boston, MA*

- Helped to lead design and implementation of highly modular and unit-testable front-end architecture for new product platform
- Implemented Web UI components using new architecture for platform-based products

July 2010 – Oct. 2010: Web Application Consultant, [ModCloth](#), *Pittsburgh, PA*

- Designed UX for, and implemented new buyer and tradeshow admin application
- Evaluated current front-end architecture and performance and recommended improvements
- Implemented highly visible, customer facing features, such as Product Zoom

Feb. 2010 – July 2010: Web Application Architecture Consultant, [Synesi, LLC](#), *Pittsburgh, PA*

- Implemented highly customized front-end Javascript components, including custom browser scroll bars.
- Managed server architecture, data model, & server implementation.
- Integrated 3rd party database migrations, authentication, and basic layout/view packages.
- Implemented role-based authorization and url routing infrastructure built on [Tank Auth](#).
- Implemented modular layout, view, and css infrastructure, based on work by [Jamie Rumbalow](#).
- Implemented ajax/json routing and handling infrastructure based on Content-Type and Accept headers.

Feb. 2010 – June 2010: UX Design and Engineering Consultant, [SnapRetail](#), *Pittsburgh, PA*

- Drove design and development process of highly interactive marketing message creation web app for [TrafficBuilder](#) offering.
- Involved stakeholders, including users, project managers, and engineers in wireframing and design process, and worked with web designer to create final, branded design.
- Implemented desktop-quality WYSIWYG message editor with inline rich text editing, media browsing, and drag and drop image editing with zooming and cropping.

- Implemented custom Dojo widgets, including a multi-complete widget that works like your email client's To field.

Feb. 2010 – May 2010: UX and Technology Consultant, [80 Degrees West Interior Design](#), *Pittsburgh, PA*

- Guided UX design for Interior Design Project Notebook web application.
- Provided guidance on technology and platform selection.
- Oversaw and assisted in management of engineering phase of web application development.

Professional Experience

Feb. 2010 – present: Founder, [Hovercraft Studios, LLC](#), *Pittsburgh, PA*

- Work with users, engineers, and designers, and other stakeholders to design user experience and interactions for desktop-quality apps on the web.
- Architect and implement front-end and web tier components that are fast, flexible, scalable, localizable, and maintainable
- Hovercraft Studios has extensive experience with HTML & CSS, including HTML 5 & CSS 3, Dojo, jQuery, and many MVC web frameworks.

Nov. 2009 – Feb. 2010: Senior Engineer, [G2 Systems, LLC](#), *Pittsburgh, PA*

- Designed user experience and interaction for a new product.
- Refactored data import and translation component for higher performance and dependency-ordered processing.
- Skills and technologies: Java, Hibernate, HTML, CSS.

Feb. 2007 – Nov. 2009: Senior Software Architect & Web Developer, [mSpoke, Inc.](#), *Pittsburgh, PA*

- Implemented Web tier MVC components, Web APIs, and UIs in [FeedHub](#), and for administering various aspects of mPower systems.
- Designed and Implemented complex architectural components, such as a content scoring and ranking framework, and custom database partitioning and Map-Reduce style query engine.
- Integrated mPower with customers' existing infrastructure, including databases and third-party email marketing services.
- Skills and technologies: Java, J2SE, J2EE, Amazon AWS (EC2, RDS, EBS, ELB, S3), Spring, JPA, Hibernate, JMS/OpenMQ, Lucene, LAMP, Javascript, Dojo, jQuery, HTML, CSS.

Nov. 2003 – Jan. 2007: Lead Software Architect, Adhoc Mobile, LLC, *Los Angeles, CA*

- Led a team of 5 Software Engineers in architecting an advertising system for mobile devices and for a distributed, social, mobile gaming environment.
- Ensured quality and consistency of architecture, design, implementation, testing and deployment.
- Managed project milestones, and ensured they were met by engineering staff.
- Designed and implemented server-side REST and XML web services, and J2ME mobile applications.
- Designed and implemented an advanced user interface API and library for mobile devices.
- Skills and technologies: Java, J2SE, J2EE, Tapestry, J2ME, Ruby, Rails, JSP, (X)HTML, XML, REST, Web Services, Apache, Tomcat, Postgres.

Jun. 2001 – Feb. 2004: Project Engineer, Institute for Computer Assisted Orthopaedic Surgery, *Pittsburgh, PA*

- Worked with three surgeons, surgical staff, two research scientists, and a team of six developers.
- Developed computer assisted surgery software systems for Adult Joint Reconstruction surgery
- Developed software to visualize clinical CT scans.
- Skills and technologies: C, C++, 2D and 3D Graphics with OpenGL.

Sep. 1999 – Apr. 2001: Product Development Lead, [Inmedius, Inc.](#), *Pittsburgh, PA*

- Led a matrixed team of three engineers, two interaction designers, and a graphic designer
- Architected, designed, and implemented the Mentor workflow and collaboration software product.
- Worked with marketing and sales staff to bring the product to market.
- Skills and technologies: Java, Apache, Tomcat, JBoss, Oracle, Sybase, MS SQL Server, XML.

Skills

- I have 13+ years experience building and deploying large scale, distributed, web and mobile applications.
- I live the web stack, and am fully buzzword compliant. HTML5, CSS3, Javascript, Dojo, jQuery, PHP, Ruby, Rails, Apache, Tomcat, MySQL, PostgreSQL, Spring, JPA & Hibernate, Java & Scala,
- Strong Software Engineering background: software architecture, object oriented analysis and design techniques.
- Software development processes: software lifecycle models, quality assurance, configuration management, metrics and measurement procedures.
- Software project management theories and practices.

Education

- 1996–1998 Masters of Software Engineering, Carnegie Mellon University *Pittsburgh, PA*
- 1991–1995 Bachelor's of Computer Science, West Virginia University *Morgantown, WV*

What Else?

- I am an active member of [St. George Orthodox Church](#) in New Kensington, PA: Music & Choir Director and Head Chanter, member of Parish Council, and webmaster.
- I am a trained operatic Baritone , and a member of the Orthodox Sacred Music Chamber Choir.
- I have composed and arranged several Orthodox hymns in the Byzantine and Russian styles.
- I have a 1st degree black belt in Tae Kwon Do and in Shotokan Karate, and a blue belt in Aikido.

References available upon request