

# T.J. Barbour - Software Engineer

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US Pacific Time Zone

I've been professionally developing software for over 10 years with full-stack experience. My strengths are UX, web and leadership skills. I'm most experienced with ASP.net and I also like working with open source and learning new things.

## Skills Summary

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<b>Experience</b>	10+ years
<b>Back-End</b>	C#, .net, Windows Communication Foundation (WCF), Windows Services, AutoMapper
<b>Web Front-End</b>	JavaScript, jQuery, AJAX, HTML, CSS, less, Bootstrap
<b>Web Server</b>	ASP.net MVC, Web Forms, Razor, SOAP Web Services, Web API RESTful Services, IIS
<b>Native Front-End</b>	Windows Forms, Silverlight
<b>Data Layer</b>	Entity Framework, LINQ to SQL, Microsoft SQL Server
<b>Testing</b>	Unit Testing (MS Test), Selenium WebDriver, FuentAutomation
<b>Tools</b>	Visual Studio 2003-2015, NuGet, TFS, LINQ Pad, Paint.net, MS Office
<b>Specializations</b>	UI & UX, Security, Object-Oriented OOP/OOD, Multi-Tiered/Enterprise Design

## Professional Experience

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### ARRIS (formerly Motorola)

AUG 2006 - Current

I am currently a staff software engineer in the PKI Center department which designs, generates, delivers & maintains secure device data for our devices as well as external customers.

- Lead the **design, architecture & development** of several systems across multiple releases
- Incorporated **best practices** including automated database migrations, automated integration testing, and mockups
- Lead several software releases performing **project management** and coordination across management, QA, requirements & operations teams
- Helped colleagues through **training**, assistance with **debugging** difficult issues, **onboarding** new hires, **mentoring** interns as well as recruiting and interviewing candidates
- Regularly gave group **presentations** on new technology, conference reports, project updates & proposals
- Helped **evaluate**, introduce, apply **new technologies** & tools
- **Educated** the department on **User Experience (UX)** and helped define a consistent department style and implement it with a shared web framework (see Optimus project) to simplify rollout and maintenance of our web applications

### Cubic Transportation Systems

JUN 2005 - NOV 2006

I was a Software Engineering Intern in the transportation division working on the Hand-Held Unit (HHU) project

- Participated in the development of the portable PocketPC based HHU including integration with a Bluetooth printer
- Collaborated with QA, management & documentation teams

## Education

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### UCSD - University of California San Diego 2007-2013 (part-time)

Completed Coursework toward Masters of Science in Computer Science

### SDSU - San Diego State University 2002-2006

Graduated Summa Cum Laude with Bachelors of Science in Computer Engineering with Minor in Spanish

# Projects

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You can see a full project details on my [StackOverflow Developer Story](https://stackoverflow.com/story/tjb) (stackoverflow.com/story/tjb)

## Portal Single-Sign-On System

Architected the system based on a need to improve the security & ease of integration of authentication for our various web systems. Lead the development team through several releases.

### Contributions:

- Design of extensible multi-factor authentication capabilities (supporting LDAP & Google Authenticator)
- Incorporated comprehensive, data-driven integration testing using Selenium & FluentAutomation

### Impact

- Multiple systems now support dual-factor authentication
- Having a fully fleshed-out homepage for our department has raised awareness and impressed customers

## Optimus Web Framework

Conceptualized a web framework after noticing the repetitive nature of rich web applications

### Contributions

- Implemented initial version including runtime scaffolding, AutoMapper extensions & JavaScript Behaviors
- Lead system design & lead team members to implement framework alongside product releases

### Impact

- Enabled less-experienced web developers to create sophisticated pages in hours or days instead of weeks
- Significantly improved the user experience across our systems for both our customers & operations team

## Mirage Web Style Package

Worked with a small team to rapidly define a standard visual style for our department and then baked it into a NuGet package for easy consumption and use in our applications

### Contributions

- Trained small team to rapidly iterate on a prototype using tools such as npm, node, grunt, less & git
- Lead development of NuGet packages to streamline the style adoption in MVC & WebForms applications

### Impact

- Improved the mobile compatibility of our websites with responsive design
- The consistency of user experience across applications has simplified work for the operations team

## Metroville Lab System Status Dashboard

Lead development of a lab dashboard system mainly for showing system update compliance.

## ULS Feature Licensing Web Application

Lead development of a Feature Licensing system which allowed product managers to dynamically define features, users to generate licenses & administrators to run reports

## PKI Works Certificate Authority System

Contributed to UI of a Certificate Authority management system including customer & administration websites.

## PRiSM Code Signing Web Application

Contributed to UI & backend platform-custom plugins for generating code signatures and other secure data.

## Locksmith Data Generation Service

Sole developer of a service for pre-generating data used to speed up other PKI operations

## Other Experience

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- Fluent in Spanish
- Restaurant Manager
- [WayOffSite](#) Podcast
- Lead Calculus Workshops
- Tutored K-12+ Students
- Ultimate-Frisbee Commissioner
- Delivering Public Talks