Tobias Tripp

Profile

I Value These Things:

- *Fast, dependable, automated tests* that quickly direct the developer to the source of any problem as well as document the system.
- *Automated build and deployment* for rapid cycles between feature conception and feature delivery.
- *Iterative design* that grows solutions to complex problems out of simple, verifiable components.
- *Pair-Programming* to maximize the benefits of peer review and knowledge sharing.
- *Test-Driven Development* for solid design, complete tests, and confident development.

Skills

Proficient	**Ruby, Javascript, Java, C/C++**	
Professional	**Ada, Clojure, Perl, Tcl/Tk, Php, Soar**	*also Awk and Ksh, but that's a story…*
Hobbyist	**Prolog, Haskell**	

Experience

December 2010–Present — **Senior Developer**, *Backstop Solutions Group*, Chicago, Illinois.

Backstop is an award-winning software provider that creates solutions for a wide variety of fund managers. I work on the InvestorBridge platform: a Rails application that integrates with Backstop's Java CRM platform to provide an information portal for fund managers to more easily release information to their investors.

Complicated permissioning logic is being moved to a service implemented in Clojure that models a graph in a Datomic database.

While here I've:

- shared expertise company-wide in such areas as Agile planning, developer testing, Object-Oriented design principles, Javascript and Ruby fundamentals, performance analysis and optimization, debugging, configuration management, and general software design.
- coached developers through the practice of pair-programming.
- given a number of classes in these areas.

April 2007–December 2010 — **Senior Consultant**, *ThoughtWorks*, Chicago, Illinois.

ThoughtWorks is a global software consultancy with a focus on Agile software delivery and client enablement. While at ThoughtWorks, I was involved with the following clients:

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- *Major Political Party*: Created a high-performance national voter lookup service to aid their collaborators in sharing voter information and with locating and de-duplicating their large database. The service is implemented as a Ruby Rack endpoint in front of a MongoDB database. Also created a similar service in Sinatra for reserving voters with an iPhone canvassing application.
- *Major Labor Union*: As part of a new program to organize and train 10,000 of their members, led a team to create a social-networking platform to support collaboration and involvement. The site is implemented in Ruby on Rails and tested with RSpec and Cucumber. It is deployed on Passenger.
- *Oracle Mix*: designed, developed, and deployed mix.oracle.com in a compressed engagement of 5 weeks and two developers, working closely with Oracle Labs to iteratively deliver a new customer engagement site for Oracle customers. The site claims to be the first enterprise deployment of JRuby on Rails for customer consumption.
- *Sleepy Giant*: near the beginning of Sleepy Giant's business, I helped coach the company through requirements gathering and categorization as well as coaching the developer through his early practice of Test-Driven Development.
- *Leading VOIP Provider*: worked as a developer on the team that rewrote the company's legacy J2EE front- end customer subscription system in Ruby on Rails. Following an initial production release, the team released to production every eight weeks with new features the client had been unable to add to the legacy system without introducing intractable regression issues. At last count, the site handled more than 200,000 hits a day and integrated with 2 legacy databases and more than 20 web services.
- *A Leading Wholesale Auto Auction*: This was the largest Ruby on Rails project to be undertaken anywhere in the world. The domain involved working on an auction site for trading automobiles which included many custom features for sellers. Helped on this team as a Ruby on Rails developer to build stories and get this project finished ahead of time. Involved in TDD with RoR, integrating RoR applications with web-services (written in Java), and functional integration testing with Selenium and Ruby.

November 2006–January 2007 **Software Development Consultant**, *Menlo Innovations*, Ann Arbor, Michigan.

Menlo Innovations builds software for a very diverse client set using High Tech Anthropology® and Extreme Programming. Projects included a web based system to ease the viewing of compound testing results for a large pharmaceutical company and software to power a flow-cytometer for a small Ann Arbor firm.

During this brief but valuable engagement, I was able to:

- mentor junior developers in Object Oriented Design and in automated testing.
- contribute to architecture discussions and decisions.

July 2005–
November 2006

Software Engineer, *Soar Technology*, Ann Arbor, Michigan.

Soar Technology develops and researches cognitive software for application in training, modeling & simulation, intelligence analysis, command and control, robotics, and medical informatics.

While at Soar, I:

- Developed tools and systems to apply artificial intelligence technology to simulation, modeling, and user interface design.
- Created custom IDE applications on top of the Eclipse platform.
- Developed and maintained tools, using Java Swing and SWT, for visualizing the state and actions of AI agents. This included mapping, event table, and agent interaction visualizations.
- Instigated the deployment and use of multi-platform continuous integration practices.
- Integrated several diverse systems, including an agent component in Soar, to model complex social networks.
- Advocated for, and helped implement, an open team room to facilitate communication and collaboration.

May 2002–
July 2005

Research Engineer, *Oasis Advanced Engineering*, Auburn Hills, Michigan.

Oasis develops hardware and software for advanced military training systems, including technology that embeds training devices into fielded vehicles. These devices allow crews to train while deployed, where normally their skills decline.

While at Oasis, I:

- Participated in the development of a safety-critical base operating system. The system was targeted for the Visual Display Unit used to monitor a nuclear power plant. The code followed the strict guidelines of the Nuclear Regulatory Commission for software safety.
- Participated in the implementation of several versions of the Abrams Common Software Library (ACSL) and Wolverine Common Software Library (WCSL). These projects entail the conversion of vehicle software for use in all M1A2 Main Battle Tank, M1A2 SEP Main Battle Tank, and Wolverine Mobile Bridge Deployment System training devices. The functionality of the vehicles' embedded operating systems, graphics systems, and communication bus are preserved in a UNIX operating system environment.

Education

2002 **Bachelor of Science, Computer Science with Honors**,
Michigan State University, East Lansing, Michigan.

1993 **63H10 Tracked Vehicle Maintenance Training**,
U.S. Army Ordnance Training Center, Aberdeen, Maryland.

Military Service

1995–2000 **Michigan Army National Guard**,
1070th Maintenance Company, Lansing, Michigan.

1992–1995 **United States Army**, *1st Infantry Division*, Fort Riley, Kansas.

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