

Aslam Tajwala

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Skills

Programming Languages: Ruby, C/C++, Java

Web stack: Rails 3.x, JavaScript, CSS3, HTML5, Ajax, JSON, XML

Databases: MySQL, NoSQL (MongoDB)

Dabbled with: JQuery, Passenger, Mongrel, Content caching (Memcache)

Source control: Git, SVN, CVS

Environments: Unix/Linux, Amazon Web Services, Heroku, Mac OSX, Solaris

Scripting: Unix shell, Applescript, Tcl/Expect

Other: OpenSSL, HTTP, Flash, GDB, TCP/IP, Ethereal/TcpDump

Work Experience

- **TweetsAround** (<http://tweetsaround.com>) Self contributor
Web Programmer *Oct. 2011 - Present*
 - Developed a Rails application that demonstrates mashing of MongoDB, Twitter API and Google Maps API.
 - Using the Twitter Streaming API this web-app lists tweets near a geographical location specified by the user.
 - A separate task continuously populates tweets to a database that's geo-spatially indexed. Making the application more responsive and robust.
 - Uses: Rails 3.1, Mongoid gem. Deployed on Heroku (1 web dyno and 1 worker dyno). Database hosted via MongoHQ.
 - Ajax based UI using JQuery. Supports all well known browsers.
- **Mail2share** (<http://mail2share.com>) Self contributor
Web Programmer *Jan. 2011 - Present*
 - Developed a RESTful Rails webapp to test the need for a social inbox.
 - Wrote the backend, TDD for MVC modules, handcrafted most of the UI.
 - Used Authlogic for authentication, Sphinx for search, Postfix for mailserver.
 - Deployed on AWS. Runs on - Apache, Phusion Passenger and Mongrel.
 - Performed basic profiling and optimizations.
 - This is a work still under progress.
- **Juniper Networks Inc.** Sunnyvale, CA
Software Engineer *July 2006 - Present*
 - Developed software for the JUNOS operating system in the areas of virtual private networks (VPN), application layer gateways (ALG), and firewall subsystem.

- Worked on an array of platforms; from high to low performance Juniper gateways - with a variety of architectures such as multi-chassis, multi-core, multi-threaded BSD-Unix environments with high-availability and fail-over capabilities.
- Profiling and optimizing a suite of cryptographic algorithms.

- **Aspect Labs** Santa Clara, CA
Security Engineer *Aug. 2005 - May 2006*

- Implemented an encryption library for handheld 3G devices.
- Developed an in-house cryptographic suite that allowed certification of various security products.
- Contributed towards certifying access-control-lists and privileges for the Solaris-10 OS, extensively making use of RSAs PKCS11 cryptographic library.

- **Suyoga Technologies** Bangalore, India
Web programmer *Jan. 2004 - July 2004*

- Responsible for complete life-cycle of a network monitoring webapp (browser+mobile) for network administration.
- The product was used by network administrators and allowed them to monitor network health via any WAP enabled mobile phone.

Education

- **Northwestern Polytechnic University** Fremont, CA
Master of Science - Computer Science (GPA 3.97) *2006-2007*
- **Rochester Institute of Technology** Rochester, NY
Master of Science - Computer Science (GPA 3.5) *2004-2006*
- **H.K.B.K. College of Engineering** Bangalore, India
Bachelor of Science - Computer Science (GPA 3.5) *2000-2004*

Academic Projects

- **"Distributed Reflective Denial Of Service" attack** Fremont, CA
Academic Project *2007*
 - Implemented an attack engine that in coordination with other zombie hosts performed a simultaneous bandwidth attack.
 - Elegant multi-threaded/load-balanced design for the DOS attack. Implemented various traffic patterns to by-pass naive Firewalls/IDS systems and report back with statistical information.
- **"Routing and Security" for an Ad Hoc Network** Rochester, NY
Academic Project *2006*
 - Implemented a dynamic source routing algorithm and made significant enhancements to it.
 - Coordinated team efforts to provide mobile node authentication with TESLA.
- **Watermarking of Relational Databases** Rochester, NY
Academic Project *2005*
 - Designed and implemented in a team project using PERL, Java, OracleDB on Solaris.
 - Implemented features such as verification of ownership, non-repudiation of database, and rollback.

- **A cross-platform Chat application**

Rochester, NY

Academic Project

2004

- Implemented features such as group chat, buddy chat, session management in Java, C++.
- Profiled/fine-tuned the chat engine to provide faster and robust concurrency among clients.

Interests

Internet: consumer/enterprise webapps.

Other: volunteering, reading, hiking, swimming.