Aslam Tajwala

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Skills

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

Scripting: Unix shell, Applescript, Tcl/Expect

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

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

Databases: MySQL, NoSQL (MongoDB)

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

Source control: Git, SVN, CVS

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

Work Experience

- **Mail2share (http://mail2share.com)** — Self contributer
  Web Programmer — *Jan. 2011 - Present*
    - Developed a RESTful Rails webapp to test the need for a social Inbox. Worked in a team of four. This is a work in progress.
    - 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.

- **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), Firewall subsystem.
    - Worked on an array of platforms; from high to low performance Juniper gateways - encompassed multi-chassis, multi-core, multi-threaded BSD-Unix environments with high-availability and fail-over capabilities.
    - Profiling & optimizing a suite of cryptographic algorithms.

- **Aspect Labs** — Santa Clara, CA
  Security Engineer — *Aug. 2005 - May 2006*
    - Implemented encryption library for 3G hand-held devices
    - Developed an in-house cryptographic suite that allowed us to certify security products.
    - Contributed towards certifying access-control-lists and privileges of 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
  MS Computer Science (GPA 3.97) — *2006-2007*
- **Rochester Institute of Technology** — Rochester, NY
  MS Computer Science (GPA 3.5) — *2004-2006*
- **H.K.B.K. College of Engineering** — Bangalore, India
  BS 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 coordinated with other zombie machines to perform a simultaneous bandwidth attack.
  - Elegant multi-threaded/load-balanced design for the DOS attack. Also, implemented various traffic patterns to by-pass naive Firewalls/IDS systems & report back with statistical information.
- **"Routing & Security" for an Ad Hoc Network using Java** — Rochester, NY
  Academic Project — *2006*
  - Implemented the 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 using Java, C++** — Rochester, NY
  Academic Project — *2004*
  - Implemented features such as group chat, buddy chat, session management.
  - Profiled/fine-tuned the chat engine to provide faster and robust concurrency among clients.

Interests

Internet: consumer/enterprise webapps.

Other: volunteering, reading, hiking, swimming.