

Career and Projects

2014-Present: AWS System Engineer (jai@amazon.com)

- Built and supported infrastructure to automate testing of Amazon's upcoming network technologies
- Owned, maintained, and improved automation framework for system-level network testing
- Built libraries and APIs to expose resources as programmatic services to testers
- Wrote tools to automate and streamline testing
- Implemented monitoring in networking labs
- Worked with Network QA Engineers to automate manual tests
- Trained Network QA Engineers in development to enable further automation
- Ported network lab infrastructure and tests to new infrastructure-and-topology-management platform
- (In progress) Planning and implementing total revamp of network lab to support growing customer needs

2013-2014: Independent Developer

- Powershame: Precommit to being productive, knowing that your friends will receive a timelapse of your desktop when you're done. Source for Flask webapp, cross-platform desktop client, rendering service, and ansible deployment scripts available on my Github.
- Timelock - Timed RSA key publication API (for when you want to provably record something but not have it read before a certain date). Source on Github.
- UpdateYourPasswords - one-stop shop for updating passwords and activating two-factor authentication. Created after I got tired of tracking them all down myself. Source and implementation on Github.

2011-2013: Democratic National Committee Linux Systems Engineer (2013: Lead)

- Installation, administration, and monitoring for hundreds of servers and applications, including: Vertica clusters for big data analysis, hadoop clusters, web servers, load balancers, Postgres, MySQL, Mongo DBs, mail servers, high-availability large storage arrays (1TB-1PB range), Xen clusters, VMWare clusters, secure network infrastructure across multiple locations and VLANs, redundant HA firewalls and routers
- Deployed projects include: Narwal, CallTool, GottaRegister, <http://democrats.org>, Democrats Abroad, Vote From Abroad, and the DNC online store
- Customized backup and restoration system for servers and DBs
- Built tracking tool to create nightly, browsable snapshots of websites
- Implemented 800+ monitored metrics to ensure continuous availability of all services

2006-2007: Undergraduate Research

- University of Chicago, Speech Synthesis for Tonal Language (2007)
- Undergraduate Research: Rutgers DIMACS, Support Vector Machines and Seizure Prediction (2006)

Skills

Linux: 10+ years experience deploying and maintaining servers (CentOS/RHEL and Debian/Ubuntu)

Python: 10+ years experience, including web development (Flask, SQLAlchemy, boto), automation (Fabric), testing (pytest), NLP (NLTK), Math/Data/Analysis (Numpy, SciPy, IPython Notebook)

Misc Languages: Various experience with Javascript, C, C++, Java, with occasional dabbling in other languages (Rust, Go, Nim, Scheme, Julia, Clojure...)

Education

University of Chicago, 2009: BA in Computer Science, focus on Artificial Intelligence and Machine Learning

The most current version of this resume may be found at <https://github.com/jaibot/resume/raw/master/resume.pdf>