Rebekah Gietzel

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Objective

Senior Software Engineer with 12+ years experience, emphasis on data science and visualization. I am looking to relocate to the Bay Area.

Tech

Graphics: OpenGL, flot, d3.js, nvd3.js, three.js, HTML, Java3D, Processing

Languages: Python, JavaScript, bash, Perl, Java, C++, C, PHP, HTML, XML

Platforms: Linux, MacOSX, Windows, Solaris

DevOps: Ganglia, RRDtool, Nagios, Apache, cfengine, LDAP, DHCP, DNS, VMWare

Development: Git, Memcache, Hadoop, AJAX, jQuery, MySQL, PostgreSQL, Drupal

Experience

UW-Madison Computer Science Department, HTCondor Project (2003 – present)

Summary:

- Participated in several roles as Manager, Software Developer and DevOps on open source distributed computing software projects funded under NSF federal grants

Software:

- Developer for SoftWare Assurance MarketPlace (SWAMP), an initiative to identify security risks in open source software
- Identify base test packages for running security tools against
- Integrate software testing tools into Ant, Maven, and C build systems

DevOps/Software:

- Develop and enhance several visualization solutions for Campus High Throughput Center (CHTC) ~16000 cpu grid cluster using MySQL/PHP, Python/JSON/flot, Memcached/Python, OpenGL and Ganglia
- Helped grow the cluster over the past year from 30K to 150K daily compute hours by repurposing old hardware, implementing better usage policies and reconfiguring machines.
- Install and debug researchers' computation jobs.
- Connect our grid with resources of the Open Science Grid (OSG)

Management:
- Managed 80 heterogenous platforms and associated infrastructure responsible for daily builds for HTCondor and several other open source grid software projects.
- This project was the the precursor to SWAMP
- Co-developed automated Metronome CI build and test software framework used by HTCondor and other open source software packages.
- Presented several talks and software demos at US and European institutions
- Performed various DevOps tasks across multiple platforms including OS installs, utility and compiler builds and installs, resolving authentication and filesystem issues, network monitoring, DHCP and DNS maintenance and debugging software issues
- Managed user interaction, support ticket queue and user accounts
- Wrote annual NSF grant reports and co-wrote grant proposals for Build and Test Facility, Metronome CI and CHTC ½ million dollar server room expansion.
- Installed Git and helped transition several codebases of varying size, language and purpose from Cvs to Git.
- Installed, patched and updated Drupal to serve documentation and manage user accounts.
- Set up and used several Wiki installs to document process and procedures, including machine inventory

Testing:
- Set up and ran unit, verification, packaging, and integration testing for ~10 packages in grid software stack on 10 platforms of varying OS/architecture.
- Installed and configured OSes and system packages and compiled testing prerequisite software on 10 platforms
- Installed RPMs and configured services for distributed test environment.

Great Lakes Higher Education Corporation (2001 – 2003)
- Ported large-scale (600,000 line) C++ student loan application to web services using agile development methodology on team of 11.
- Websphere, J2EE, IBM MQSeries, and Oracle technologies
- Co-wrote parser for converting flat files containing student loan application information in various versions and formats into objects to store in the database and send to MQSeries queues
- Created Flash-based demo for student loan software
- Contributed to development and maintenance of large (600,000 line) C++ software application with Oracle backend

Education
B.S. Computer Science/Software Engineering, Physics Minor(Sigma Pi Sigma) UW-Eau Claire