

John Morrissey jwm@horde.net

<https://github.com/jwm/> | <https://horde.net/~jwm/>

Skills

- Python, Unix shell, C, PHP, Perl, HTML/CSS, JavaScript, SQL, Java
- Linux (Debian/Ubuntu, CentOS/Red Hat), *BSD, Cisco IOS, Solaris, OS X
- Apache, MySQL, Puppet, Ansible, git, Django, Linux KVM virtualization, AWS, Slurm, OpenLDAP, Postfix, BIND, FreeRADIUS, Nagios, GIS

Experience

Essess, Inc.

- Feb. 2015 - Present: Director, Software Engineering

Independent Consultant

- Aug. 2014 - Feb. 2015

I make it fast and easy for scientists to gain meaningful insight into their data.

- Wrote fully automated system (Python, Ansible, boto, bcbio-nextgen) for building genomic analysis clusters on Amazon Web Services, allowing scientists without computer science domain experience to gain meaningful biological insight into their data with a handful of simple commands.
- Helped productionize a scientific analysis pipeline combining sensor data (Lidar, IR) and GIS data, making performance optimizations and reliability improvements.

Harvard University (Higher Education)

- Dec. 2012 - Aug. 2014: Research Computing Associate

Supported a large compute cluster and the scientists using it to do research.

- Senior member of the team responsible for a large (~50k core) compute cluster distributed across multiple datacenters with 9PB+ of storage.
- Troubleshoot performance problems in all areas of the cluster: the SLURM job scheduler, scientific pipeline cluster jobs, and the network and distributed systems supporting the cluster itself.
- Worked directly with scientists and research labs to coordinate migration from a legacy cluster.
- Refined systems automation, monitoring, and end-user infrastructure as the cluster size and staff headcount ~doubled.
- Helped scale the bcbio-nextgen pipeline to handle genetic variant calling for 1000+ whole human genomes.

Frontier Communications (Telecom)

- Feb. 2007 - Jun. 2012: Senior Software Engineer
- Jul. 2001 - Feb. 2007: Programmer II

Wore a variety of hats including writing new/modifying existing code, designing/implementing systems and network infrastructure, performance planning and tuning, and final escalation for production troubleshooting and failure analysis.

- Lead member of the team responsible for all soft services (e-mail, authentication, web service, etc.) for 2+ million accounts.
- Wrote parallelized Python-based software that:
- migrated 700K accounts and 4TB of data to a new e-mail platform
- migrated 1.4+ million accounts from a corporate acquisition.

- Moved 300+ machines to Puppet for configuration management.
- Integrated automated Debian/Red Hat installers with automatic Puppet installation.
- Wrote (Python, PHP) backend authentication and management systems for Frontier Mobile wireless product (~\$3M in annual revenue).
- Troubleshot complex problems at all layers of the stack, using debuggers, profilers, tcpdump, etc.
- Enhanced Open Source software to meet our needs and contributed upstream.
- Developed PHP-based account provisioning software to manage Internet service for all accounts.
- Led code reviews and developed programming standards and best practices.
- Performed software audits (C, PHP, Perl, shell, JavaScript, others), of group member and vendor/Open Source code.

RPA Internet/Blue Frog (Internet Service)

- Feb. 1997 - Jul. 2001: Systems/Network Administrator

Jack of all trades for a small ISP that underwent rapid growth.

- Managed technical growth as the customer base grew fivefold to over 10,000 customers.
- Made heavy use of Open Source software, developing new projects and contributing to existing ones. Software costs were near zero so revenue could fuel business growth.
- Refreshed entire infrastructure onto server-grade hardware.
- Installed and troubleshot telecom circuits and Cisco networking equipment.

WITR Radio (Radio Broadcasting)

- 2001 - 2007: Engineer

Various technical and leadership roles at a student-run FM radio station, with a focus on the station's long-term future.

- Managed RF, audio, and computer infrastructure.
- Chose equipment and designed procedures to withstand personnel turnover.
- Documented station design, procedures, and history.

Sample bug reports, contributions

http://bugs.schedmd.com/show_bug.cgi?id=607
<http://lists.cistron.nl/pipermail/freeradius-users/2010-January/044171.html>
<http://bugs.launchpad.net/ubuntu/+source/sysvinit/+bug/639940>
<http://www.openldap.org/its/index.cgi/Software%20Bugs?id=6090>
<http://www.redhat.com/archives/libvir-list/2010-March/msg01307.html>
<http://bugs.debian.org/563014>

Education

BS in Information Technology, November 2004
 Rochester Institute of Technology, Rochester, NY
 Highest Honors, 3.857 GPA
 Concentrations in Systems Administration and Networking
 Minor in Psychology