

F. Grahame Murray

Durham, NC 27707

Home: 919.828.9879

Email: jobs@grahame.comWeb: <http://grahame.com/>

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KEYWORD SUMMARY

DevOps, Scalability, Python, Java, JEE, PHP, Javascript, HTML, AWS

OBJECTIVE

I am looking for a full-time position as a lead, principal, or senior software (and/or systems) engineer, designing and developing interesting and challenging systems, services, and applications.

HIGHLIGHTS

- 15+ years software development and design experience
- Product development and consulting experience
- Depth in language, educational, and community projects

CORE COMPETENCIES

- High-scale web application and service development and deployment
- Application design and modeling
- Presentation layer coding and scripting (HTML, JSP, Python, PHP, JavaScript, XHR)

EXPERIENCE

Principal Software Engineer

Nuance Communications

Durham, NC

January 2012 - Present

- Swype was acquired by Nuance!
- Continued the development and improvement of the Swype Connect API, with the main focus on performance
- Improved "visibility" of our connected services, using Graphite, statsd, collectd, Grafana, Kibana, and SNMP, giving us insight and trending data into how our application is performing and being used
- Switched from EC2 Auto-Scale to a Puppet managed, but manually scaled system
- Migrated SwypeConnect from AWS to an in-house, managed ESX cluster
- Used Hadoop and Pig to mine Cassandra for application usage and trend data
- Built second API in Go, wrapping core business logic written in C, to support realtime predictions in the cloud
- Assumed responsibility of legacy Java/Spring language database mangement system
- Built server support for on-device storefront
- Deployed and support applications in Chinese datacenters

PROJECTS:

- + Swype Connect
- + Language Lab

Senior Systems Engineer

Swype

Durham, NC

June 2011 - December 2011

- Came on board to lead the effort of building a high-scale web-service to support tens of millions of mobile transactions per day, to enhance phones using the Swype keyboard
- Built a multi-datacenter, geographically redundant, Python/WSGI web-service to support millions of write-heavy requests per day, backed by a similarly redundant Cassandra cluster
- Hosted in Amazon Web Services, for ease of build-out and managed infrastructure, utilizing EC2, AutoScale, CloudFront, CloudWatch, S3, Route53, RDS, ElasticCache
- Used EC2 auto-scaling to ensure a timely response to customer demands
- Built a fully "DevOps" team, using PagerDuty, Nagios, Graylog, SyslogNG, and EC2, plus our stateless custom web service

PROJECTS:

- + Swype Connect

Principal Software Engineer

BBH Media

Raleigh, NC

September 2002 - June 2011

- Architected and developed and new website platform; moving all high-volume sites into a centralized, load-balanced, three-tier, standardized codebase using jQuery, PHP on Zend Framework, SOAP, JPA, EJB3, MySQL, and Lucene
- Built a web-service-exposed, JEE middleware to power customer self-service and management portal using JPA, EJB3, SOAP, and MySQL
- Architected, designed, and developed a scalable, clustered, high-availability, J2EE-based content authoring and management system using JBoss, Hibernate, JSP2, XSLT, and SQL Server
- Designed, optimized, and normalized all major business systems' database schemas

PROJECTS:

- + Redesign of websites using Zend Framework
- + JEE(J2EE) Content Management System
- + PHP Electronic Zine CMS
- + Multi-currency Payment Processing System
- + Public PHP & PERL scripts

- Developed custom content management system using JBoss, EJB, Struts, Velocity, JSP, JSTL, and PostgreSQL
- Made heavy use of DHTML and JavaScript for both front-facing and internal applications, including remote scripting and AJAX
- Built and extended a custom PHP-based CMS system for e-zine publication
- Wrote functional, integration, and unit tests
- Administered CruiseControl and Hudson continuous integration and build systems
- Mentored junior and new engineering hires
- Documented requirements for outsourced projects
- Designed and built internal web applications to automate internal business functions, such as content publishing, indexing, and search
- Built international, multi-currency money management system, including automated thirty-party import and international credit card processing
- Created and maintained PHP and PERL scripts for website management and content validation
- Ported and rewrote legacy PERL scripts with more robust PHP scripts, also adding new site features such as pagination
- De facto and acting Linux, BSD, and Windows system administrator

Lead Engineer

Sun Microsystems

Menlo Park, CA

May 2002 - September 2002

- Led engineering effort for devCK, Developer Community Knowledge project
- Main developer for reimplementation of JCP site, tasks included:
- Redesigning the entire DB schema, as well as creating object-relational mapping
- Porting and upgrading the administrative site from old Vignette TCL to the new Java platform
- Rebuilding the public website from JSP (Model 2) site to MVC, as well as using the new data model

PROJECTS:

+ Java Community Process
+ Developer Community Knowledge

Java Engineer

James Irvine Foundation

San Francisco, CA

September 2001 - January 2002

- Independently contracted with the James Irvine Foundation to complete Coral Connect project.
- Designed and implemented message boards, file storage, address book, and other interactive services of the project using Arsdigita Community System, XML, XSL, and Oracle 8i.
- Configured qmail, Courier IMAP, JWMA Web mail, and ACS for Java on Solaris 2.8 for custom integrated webmail feature.

PROJECTS:

+ Coral Connect

Java Systems Engineer

Liquid Thinking

San Francisco, CA

March 2001 - September 2001

- Designed and implemented binary parsing, scoring, and other educational algorithms for an interactive educational product using Rational Rose and ATG Dynamo 4.5.
- Architected and designed file system integration for intranet using Arsdigita Community System 4.6, XML, and XSL.
- Implemented product family parametric search for Cypress Semiconductor using JavaScript, PERL, and ColdFusion.
- Led Quality Assurance effort for Certicom site redesign using Logigear TrackGear.
- Began work on CoralConnect but entire team was then down-sized (finished at subsequent position with James Irvine Foundation)

PROJECTS:

+ Leap Track
+ Cypress Semiconductor
+ Certicom
+ Coral Connect

Software Engineer

SRI International

Menlo Park, CA

June 1999 - February 2001

- Architected and implemented many web applications, online surveys, and web assessments using Java Servlets, JSPs, XML, and MySQL databases.
- Designed and coded various reusable frameworks, from survey tools to database abstraction layers.
- Co-developed and designed ChemSense, a Java-based Knowledge Building Environment for high-school chemistry students.
- Built CILT Knowledge Network and affiliated web sites, and single sign-on framework in Cold Fusion and MySQL on Linux.
- Designed and authored TeamLab, a Palm Pilot-based open-ended assessment application, desktop conduit, and website that supports off-line data collection and on-line statistical analysis.
- Helped port URLeX from Python code to Java.
- Implemented Instructional Metadata IMS Metadata XML Generator tool, on a contract for Sun Microsystems

PROJECTS:

+ TeamLab
+ ChemSense
+ CILT KN
+ URLeX
+ LOM-IMS XML Toolkit

COMPUTER SKILLS**Computer Languages:**

Python, Java, Go (golang), JSP & JSTL/EL, XML, PHP, DHTML & XHTML, Groovy, XSLT & FO/P, PERL, Javascript, bash, Velocity, i18n, C & C++, ColdFusion, Lisp, MIPS assembly, InstallShield Script

Databases:

Cassandra, MongoDB, MySQL, PostgreSQL, MS SQL, Oracle, Solid, FileMaker Pro, mSQL, Access

Platforms:

JBoss, Tomcat, Zend Framework, Spring, Resin, ColdFusion, Vignette, ATG Dynamo, Arsdigita ACS

Tools:

Web Servers: nginx, uWSGI, gunicorn, Apache

Configuration Management: Puppet, Ansible, Chef

Monitoring: Nagios, Graphite, CollectD, StatsD, SNMP, Cacti, Kibana, SyslogNG

NoSQL: Cassandra, Hadoop/HBase, MongoDB, CouchDB, Riak

Reporting: Spark, Hadoop, Pentaho, Jasper, Crystal Reports

Messaging: RabbitMQ, ActiveMQ, JBossMQ, JBoss Messaging

IDE: IntelliJ IDEA, PyCharm, Eclipse, NetBeans, Xcode, Visual Studio, CodeWarrior, JBuilder

Modeling: Visio, OmniGraffle, Rational Rose, Visual Paradigm, Poseidon, Argo UML

Version Control: Git, Subversion, CVS, Perforce, SCCS, RCS

Bug Tracking: JIRA, Bugzilla, Eventum, TrackGear

Web UI: jQuery, YUI

Build: Ant, Jenkins/Hudson, Cruise Control, Maven2, Make

Unit Testing: py.test, JUnit, Cobertura, Mockito, EasyMock, JMock, Cactus, TestNG

Performance Testing: JMeter, Apache Benchmark, JProbe

Caching: Memcache, Redis, APC, XCache

Web/Integration Testing: Selenium, JProbe

Search: ElasticSearch, SOLR, Lucene, Verity

Persistence: Hibernate, JPA, EJB, OJB

MVC: Django, Struts, Grails, Spring MVC, Cake PHP, Bebop

Virtualization: AWS, Vagrant, VMware ESX, VirtualBox, Xen

Text Editor: vi(m), Atom, Emacs

Installer: InstallShield, NSIS

Command Line: GNU tools, Cygwin

IM: Jabberd, Openfire

Aspect Handling: AspectJ, JBossAOP

Operating Systems:

CentOS, Windows Vista/XP/2000/NT, RedHat EL, MacOS, Solaris, PalmOS, BSD, SunOS

PUBLICATIONS

Disambiguating Drag-and-Drop: The Click-and-Fill alternative to managing hierarchies

I explained my implementation of a new "Drag and Drop" like interface

Published: CHI 2000 Conference Proceedings, April 6, 2000

Workpad + Palm Series Powered Pack 2000 Edition

My software was written up, rated, and included on accompanying CD-ROM

Published: ASCII Corp., March 10, 2000

Language: Japanese

Workpad + Palm Series Powered Pack

My software was written up, rated, and included on accompanying CD-ROM

Published: ASCII Corp., June 11, 1999

Language: Japanese

EDUCATION

1995 - 2000

Goucher College Towson, MD

BA in Computer Science

Courses in Java, LISP, 3D Graphics, A.I., Assembly, Software Engineering, Algorithms, Hardware Architecture, and Computation

Summers 1994 - 1997

University of Delaware Newark, DE

Graduate & undergraduate courses in C, C++, compiler design, computer graphics, and multimedia design.

REFERENCES

Available upon request