ALLAN JACOBS

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SKILLS

Programming languages: C, Fortran, HTML and CSS, Java, JavaScript, Perl, PHP, Python, SQL

Frameworks: d3.js, ggplot, Numpy, Pandas, R, RStudio, Scikit-Learn, SVG.

IDEs: Eclipse, Intellij.

Version control sytems: Git, Subversion. Databases: Cassandra, MongoDB, MySQL, Oracle.

Operating systems: Linux / Unix, Windows

Other skills: Basic exploratory and inferential statistics. Bayesian statistics. Artificial neural networks. Machine learning.

WORK EXPERIENCE

Layer Eight Security, Fremont, CA • Feb 2014-April 2015 • Senior Software Engineer

Layer Eight hosts a big data platform used to block access in real time to web pages based on signatures in the time pattern of hits, headers, and cookies. The server is in production and can handle millions of hits per site per day.

- Developed Scala server backend code. Designed and developed REST interfaces for the front end. Set up and operational management of Amazon Web Services hosts.
- Provided data designs for MySQLand Cassandra databases.
- Designed the algorithms threat detection in the next release of the product.

Sony Network Entertainment, San Francisco, CA • April 2012-Feb 2014 • Senior Software Engineer
Maintained and extended a JavaScript test framework for PlayStation 3 Webkit-based APIs. Maintained and extended a Java test framework for Sony Network Entertainment's storefronts. Tested the storefront APIs leading up to the PlayStation 3 launch.

Nelson Technology / Yahoo!, Sunnyvale, CA • May 2011-April 2012 • Senior Integration Engineer
Analyzed test results, developed analysis software, and wrote tests tailored for Yahoo's Advertising Platform Group.

Verdestrada, Inc., Palo Alto, California • Nov 2009-May 2011 • Principal Software Developer
Launched a business centered around implementing an identity server in a cloud computing environment utilizing Sun Microsystem's Open Identity. Integrated server-side changes for multi-tenancy capabilities. Currently developing a client project leveraging circuit simulation software for client needs. Product used Java, MySQL, and LDAP.

Provade Direct / Oracle Corporation, Redwood Shores, CA • Nov 2007 • Nov 2009 • Software Engineer in Test
BridgeStream, Inc., San Francisco, CA • Nov 2007 (purchased by Oracle)
Developed and executed test plans for a variety of products, including conducting manual testing. Monitored product performance and quality via diagnostics centered on data initialization.

Manually tested Oracle Identity Manager and the Oracle Governance, Risk, and Compliance Manager.
Delivered performance tests for Oracle Role Manager by designing a large-scale data generator capable of

organizing a massive data set in a hierarchy.

Searchforce, Inc., San Mateo, California • Jan 2007-Aug 2007 • Software Developer
Searchforce provides software to customers that automates bids for search engine advertisements. Coordinated development and implementation of the back end architecture for the web-based bid management system. Ensured proper interface and integration with the Flex-driven front end. The product used Java, Hibernate, Struts, and an Oracle database.

Sun Microsystems, Santa Clara, CA • Jan 1996-Sept 2006 • Principal Member of the Technical Staff
Wrote software architecture specifications for the Java Enterprise Systems (JES) installer. Supervised the JES technical team with the goal of uncovering major implementation problems and debugging them, including critical problems preventing re-installation. Addressed and resolved issues between JES groups. Served as the overall tech lead for JES for one release. Coordinated design and development of automatic testing solutions for Java quality assurance teams. Built a test harness used for the majority of Java VM testing. Developed new thread and JNI tests.

Applied Parallel Research, Topanga, CA • 1992-1996 • Staff Engineer
APR developed an IDE to help developers parallelize their serial Fortran codes. Developed a parallel computer (MIMD and SIMD) Fortran runtime library. Wrote a parallel I/O library for IBM.

Pacific Sierra Research, Santa Monica, CA • 1988-1992 • Physicist
PSR was a defense contractor. My role was to develop and maintain modeling codes and to analyze data. Worked on the LIDAR detection of submarines; invented data transformations that allowed the first light images of submerged submarines in the free world. Automated the detection of mines using image processing techniques and a LIDAR system. Modeled and analyzed data from short range electromagnatic pulses using an integral equation approach.

PROJECTS

EPE and UME: http://jslab.dk/. JavaScript to make old Internet Explorer W3C standards compatible.

Scala Swing: https://github.com/scala/scala-swing.

EDUCATION

Data Science Nanodegree (Udacity)
Functional Programming in Scala (Coursera)
Intro to Machine Learning (Coursera)
Algorithms 2 (Coursera)
Oracle 11g Database Administration I
Sun Certified Programmer - Java 5

Doctor of Philosophy, Geophysics
Stanford University, Stanford, California

Bachelor of Science, Physics
Massachusetts Institute of Technology, Cambridge, Massachusetts

PATENTS

Patent 6,839,647 for Same Virtual Machine Mode for Distributed Test Execution (2005)