

Robert C. Hagemann III

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Chicago, IL

Computer Engineer with thirteen years experience seeking full-time software development position. Eager and quick to learn new technologies, software and applications, to apply them to professional and personal projects. U.S. Citizen.

Experience

Firm58 (firm58.com)

Aug 2010 – Current

Senior Java Developer

Chicago, IL

Optimizing and improving a large software-as-a-service back-office post-trade accounting system.

- Worked to modernize the six-year-old codebase written by many different developers, most of whom are no longer with the company.
- Overhauled the legacy overnight trade processing from single-trade JMS loading to an in-memory, batched, dynamically configurable, multi-threaded, recoverable system.
- Wrote dev and production database schema and code installation and upgrading tools, automated loading and configuration of test systems.
- Dealt with many problems around Oracle, optimizing and rewriting JDBC code, packages, views, partitioning and core data model to improve performance.

XO Capital Group, LLC

Apr 2006 – Apr 2010

Director, Technology

Chicago, IL

Designed and built a “black box” automated trading system, including order state management, exchange interfacing FIX order entry and market data, risk calculation and management, algorithm development, performance testing and microsecond-level optimization, with a small self-directed development team. Devised concrete components and tools from rough descriptions. Created market data and trade analysis tools, simulation environments and back-testing systems in Java and Perl. Multi-threaded system first operational summer 2006, trading hundreds of thousands of foreign exchange futures /cash products, equity and interest rate (eurodollar, treasury) futures on CME, EBS and Hotspot.

Chicago Mercantile Exchange (cmegroup.com)

Dec 2002 – May 2006

Lead Programmer/Analyst – Falcon

Chicago, IL

Designed, built and enhanced the Falcon matching engine, in Java on Linux, with four-developer team under tight throughput, latency, reliability and cost constraints. This from-scratch many-threaded engine now matches all futures and options contracts at CME Group, handling thousands of orders per second with hot/hot deterministic primary/backup fault tolerance. Owned FIX message parsing and generation, market data generation, Tibco messaging, thread-farms, interface to multiple Oracle RAC fault tolerant clusters, performance testing and microsecond-level optimization. Worked with DBA's and Oracle to dramatically improve engine and RAC performance and reliability.

Parlano, Inc. (parlano.com) to Divine, Inc., then Microsoft

Jan 2001 – Nov 2002

Software Engineer

Chicago, IL

Integrated, debugged and added features to Java and C multi-server distributed system, with Java and Delphi GUI clients, through two major releases including a nearly complete rewrite of the system. Ported all server code to Cygwin under Windows, including the custom build environment (Perl, Shell, Make) and custom

packaging system (Perl, Shell and a C crypto licensing system). Later converted to a Jakarta-ant build process. Wrote a flexible packaging, menu-based installation and configuration system.

CareerSite Corporation (careersite.com) May 1998 – Jan 2001
Software Engineer, Systems Administrator, Security Officer Ann Arbor, MI
Developed and maintained Java and Perl back-end web software, its supporting programs and GUI apps. Administration, configuration and problem solving for the production, test and development Linux servers, workstations and firewalls. Worked extensively with cross-company data and integration. Completed many projects earning experience in networking, databases, multi-threading and Unix.

Raqz Networks (raqz.net) Jan 2004 – Current
Co-Founder, Member Chicago, IL
Manage customers and infrastructure for our server colocation service, installing and maintaining equipment racked at one of the world's largest datacenters, the Lakeside Technology Center.

Education: B.S.E. Computer Engineering, University of Michigan
Dec 1999 – GPA 3.4 / 4.0

Patents: 7434096, 7694170 – Match server for a financial exchange having fault tolerant operation
7480827 – Fault tolerance and failover using active copy-cat

Projects: – Founder of WiGLE.net: Wireless network (WiFi/Cellular) database, statistics, clients, geographic imaging and mapping. Scaled database and multi-threaded perl processing to handle 45+ million network locations computed from over 1.3 billion observations. Wrote the highly-rated WiGLE Wifi Wardriving app for Android, helping to now grow WiGLE by more than 60,000 new geo-located wifi networks every day.
– AM/FM Find Radio Stations: An Android app to list and map nearby radio stations, filtering and sorting results. Wrote in Java and Perl code to download and format data from the FCC and other sources to create a binary encrypted database of radio station information. Ported FCC Fortran code to Java to enable f(50,50) field strength calculations.

Technical Skills: Java, Perl, Groovy/Groovy++, Bash Shell; Rusty: {C, C++, Obj-C} FIX, Tibco, JMS, SQL, HTML, XML, Maven, Ant, Spring-framework Linux {RHEL/CentOS, Fedora, Debian, Ubuntu}, OSX, Android, Windows/Cygwin, Solaris SVN, Perforce, CVS, ClearCase, StarTeam Oracle RAC, MySQL {InnoDB, MyISAM}, Apache Httpd, mod_perl

Honors: Eagle Scout, Boy Scouts of America
Phi Beta Kappa Commendation, 1999

Previous Activities: ACM ENIAC Restoration Team – Head of Interface Group
ACM, IEEE, HKN – Student Officer/Member