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# JAMES S. RAVN

## SOFTWARE DEVELOPER

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### Profile

Proven record of delivering high quality software.  
Passionate about elegance in design and engineering.  
Self-starter with a strong sense of business value.

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### Technical

Java / Ruby	Git / Subversion	Mongo / Mysql / Oracle
C++ / C	IntelliJ / Netbeans	OS X / Linux / Windows
Maven / CMake	Emacs / Vim	Scrum / TDD

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### Experience

**IMC Financial Markets** (Chicago, IL) 2009-2013  
Senior Software Engineer

Senior developer on valuation team. Primary contribution is the core valuation library, used for biased and unbiased pricing of securities. It is written in Java with some core numerics in C++. It uses Mongo and JMS with a protocol-buffer inspired protocol for parameter persistency. Challenges include handling large parameters in a latency sensitive environment and providing thread-safety while maintaining high performance caching and valuation consistency.

Many other significant contributions were made to the company's technology. Highlights include replacing the company-wide ant-based build system with Maven (leading to ~80% reduction in build times), and performance improvements to the feed component (enabling it to easily handle ~30 million states per minute at peak). Also known for being able to solve production issues in high pressure situations.

Social contributions include mentoring junior developers, hosting book clubs (e.g. Hull, GrOOS), and brown bag lunches.

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**Motorola Mobile Devices** (Libertyville, IL) 2006-2009  
Senior Software Engineer

Lead developer of software quality tools website used by 3GSM software management. This website comprised of about a dozen tools for aggregating data from numerous sources and applying statistical models for analysis.

Tools were developed in ASP, Ruby on Rails, and Excel. It interacted with data stored in Excel, Oracle, MySQL, MSSQL, and HTML pages.

Statistical analysis was performed in Minitab, Excel, and C#. Monte carlo simulations and linear regression were regularly used. A novel software defect estimation model was designed using Markov chains.

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*Education*

University of California - Los Angeles, California  
B.S. Computer Science and Engineering, 2005 — 3.5 GPA

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