

Ralph E. Gonzalez

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Software engineer experienced in high-performance application development, system modeling and integration, financial data analysis and visualization, optimization, machine learning

Ph.D. in Systems Engineering, University of Pennsylvania
B.S. in Mathematics, University of Delaware

Senior Software Engineer, August 2015 to present
SevOne, Newark, Delaware

- Design and engineer solutions and tools as part of an agile team devoted to high-performance, multi-threaded network monitoring applications
- C/C++, PHP, Perl, Bash, Ext JS, MySQL on a Linux platform

Software Engineer, Consulting Feb 2008 to present
Gaia Conseil/Hadrian Advisors SAS, Paris

- Manage and conduct research in statistical and heuristic techniques for financial data analysis, visualization, optimization, and backtesting
- Develop software libraries, tools, and end-user applications and web apps using Java, C++, Perl, MySQL
- Maintain fundamental data using relational and proprietary high-speed databases

Senior Java Developer, September 2011 to June 2015
Corporation Service Company, Wilmington, Delaware

- Tech lead on agile development of internal and outward-facing web applications using Java/Spring, JavaScript, JSP, CSS
- Tech lead and architect on Salesforce/APEX integration
- Application planning and support for stakeholders in Sales, Service, Marketing, Account Management, and Retention teams

Software Engineer, May 2009 to August 2011
Hosting.com, Newark, Delaware

- Tech lead on agile development of internal and outward-facing web applications, C#/ASP.NET and Java EE/JBoss platforms

Senior Software Architect and Mathematician, April 1994 to January 2008
IID Partners, Hamilton, Bermuda

- Researched statistical and heuristic techniques for financial data analysis and risk management
- Developed C/C++ and Perl libraries, tools, and end-user applications, including:

- *scriptable time series filtering and backtesting*
- *binary-tree based backtesting, analysis, and visualization*
- *heuristic portfolio optimization*
- *proprietary high-speed time series database and visualization*
- *scriptable distributed task-management*

Software Development Consultant, July 1996

Idealab!, Glendale, California

- Provided collaborative filtering technology and software for web start-up

Publications and Conference Proceedings

- *QUILT: A Uniform Framework for Programming and Learning*, FLAIRS-95 International Workshop on Intelligent Adaptive Systems, Melbourne Beach, Florida, April 1995
- *An Object-Oriented Library for Hierarchical Animation Sequences*, Computer Graphics, Sept. 1993. Also in Computer Graphics, special on-line issue, May 1993
- *Successive Refinement of Empirical Models*, AAAI-93 Workshop on Learning Action Models, July 1993
- *Learning by On-Line State Space Refinement*, AAAI Spring Symposium on Training Issues in Incremental Learning, Stanford, CA, March 1993
- *Class Libraries for User Interface Management*, Collegiate Microcomputer, Vol. X, No. 4, Nov. 1992

Engineering Skills

- Certified Scrum Developer
- **Languages:** C/C++, C#, Java EE, APEX, Perl, PHP, Lua, HTML/CSS, JavaScript, SAS (statistical analysis), SQL, Fortran, Basic, Prolog, Lisp, APL
- **Frameworks:** Spring, ASP.NET, Seam, JSF, Qt, Swing/AWT, Tk, jQuery, Ext JS
- **Environments:** Linux, Solaris, Windows, Macintosh, Salesforce

Interests

Music/acoustics software development and recording, photography, trail running