

ERIC POLINO

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Employment

- **Karamaan Group (New York, NY)**—Quantitative Developer *Feb. 2010–present*
 - **Haskell Development:** Developed financial modelling and infrastructure software to assist investment activities. Built tools to scrape/parse public websites.
- **BAE Systems (Columbia, MD)**—Senior Research Engineer *Sept. 2008–Jan. 2010*
 - **Network Intrusion Detection:** Developed intrusion and anomaly detection algorithms in C. Analyzed algorithm behavior with large real-world traffic streams. Wrote library for manipulating bloom filters.
 - **Database Interfacing:** Redesigned and rewrote a Java application for retrieving data from JMS and storing it in a database. Reduced code size by 77%.
 - **Security Clearance:** Top Secret
- **Northrop Grumman (Melbourne, FL)**—Software Engineer *June 2003–Aug. 2008*
 - **Air Tracking and Data Fusion:** Implemented system for large-scale, real-time air tracking and data fusion in Java, based on a MATLAB prototype. Optimized and parallelized tracking software, resulting in a >1000x total speed increase. Supervised several developers in development of fusion system. Integrated and tested fusion software in a prototype weapons system.
 - **Command and Control Crew Member:** Worked in simulation of next generation airborne battle management command and control system as an offensive duty officer, gaining operational insight to aid system development.
 - **LIDAR to DTED Converter:** Tested/Maintained software to create digital terrain elevation data (DTED) from raw LIDAR (Light Detection And Ranging) data. Wrote LIDAR simulator to facilitate testing before real LIDAR data was available. Analyzed real data to determine the source of problems in the hardware LIDAR system and software DTED conversion.
 - **DTED Filtering:** Implemented algorithms that filtered non-ground data from DTED to create a "bare earth" map. Wrote synthetic terrain generator for testing.
 - **Security Clearance:** Secret

Publications

- Gregory Collins, Doug Beardsley, "The Snap Framework: A Web Toolkit for Haskell," IEEE Internet Computing, vol. 15, no. 1, pp. 84-87, Jan./Feb. 2011.

Personal Projects

- **Snap Framework (<http://snapframework.com>)** *2010-Present*
 - Original co-author of the Snap Framework, a high performance web framework written in Haskell.

- **Noscrolls (<http://noscrolls.com>)** *2008-Present*
 - Designed, developed, and deployed noscrolls.com, a website for logging and tracking fitness workout data. Entire site developed in Haskell.
- **LOAPS POTM (<http://dinsights.com/POTM/>)** *2005*
 - Wrote C program for the POTM programming contest that played LOAPS, a variant of the game Lines of Action. It won with a perfect 74-0-0 record.
 - Used PN^2 search to create an extensive database of solved openings.
 - Created a genetic algorithm to learn an evaluation function. This worked extremely well and was probably the biggest factor in winning the contest.
- **Atomic Chess** *2004-2005*
 - Wrote an atomic chess engine in Java to improve my Java skills.
 - Generated up to 5-piece atomic endgame tables.
 - It is one of the top 3 atomic chess programs on the Free Internet Chess Server.
- **Suicide Chess** *1999-2003*
 - Wrote suicide chess program in C to play on the Free Internet Chess Server.
 - Implemented proof-number and PN^2 search algorithms for finding forced wins.
 - Generated 2 and 3-piece suicide chess endgame tables with optimal indexing.

Computer Experience

- Experience with C, Java, Haskell, Scala, C++, Python, C#, Perl, PHP, MATLAB, R.
- Comfortable in Windows and Unix/Linux environments.
- Winner, 16th International Obfuscated C Code Contest (2001).
- Scored 180 on the Computer Science Major Field Test (2001).
- Wrote programs to play games such as Connect 4, Pente, and Dots-and-boxes.
- Wrote a security program in C for elementary school computers (age 13).
- Audited two college-level C/C++ programming classes (age 12).

Education

- **Colorado State University**—Working towards Masters of Computer Science
 - Completed: Parallel Programming (4 credits), Machine Learning (4 credits)
- **Southern Adventist University (SAU)**—B.S. Computer Science *1998-2003*
 - Two classes short of a second major in Mathematics

Achievements and Activities

- Who's Who Among Students in American Universities & Colleges
- Outstanding Computer Science Senior Award - SAU School of Computing
- John Philip Sousa Award - SAU Concert Band
- Calculus I Award - SAU Mathematics Department
- Hold all SAU swimming records