

Joseph McAlerney

4806 SE Reedway St.
Portland, OR 97206

joemca@mac.com
503-320-6423

Objective

A career position in computer security research and software engineering

Education

- **Master of Science, Computer Science**, emphasis in Computer Security
University of California, Davis, 3.32/4.00 GPA
Thesis title, "An Internet Worm Propagation Data Model"
Awarded September 2005
- **Bachelor of Science, Computer Information Systems**, Business Administration minor
Humboldt State University, 3.66/4.00 GPA
Awarded December 1999

Employment Experience

- **Computer Security Engineer** **Huntsville, AL**
SYColeman Inc. **October 2003 - Present**
 - * Performed a feasibility study on computer security technologies for use in the military's GMD network.
 - * Analyzed and made recommendations for COTS/GOTS security software to augment the GMD network's security.
 - * Lead engineer and developer for a DARPA funded secure software wrapping project.
 - * Assist in writing technical content for government proposals.
 - * Performed trade studies on existing and emerging computer security products and tools.
- **Computer Security Programmer/Analyst/Consultant** **Davis, CA**
Silicon Defense, Inc. **Sept. 1999 - April 2003**
 - * Co-designer and developer on the CounterMalice Internet Worm containment product.
 - * Designed and developed an open source security software library (libidmef).
 - * Monitored and trained coworkers to monitor client networks for intrusions.
 - * Developed a two day commercial training course for the Snort IDS.
 - * Responsible for interviewing and training a software support staff.
 - * Project lead for a variety of different software projects.
 - * Developed a product stress test bed.
 - * Responsible for configuring, packaging, and deploying IDS rule sets to customers.
- **Intern, Global Services Business Unit, SGI Consulting** **Summer 1999**
SGI **Mountain View, CA**
 - * Created user management tools to provide web-based authentication and authorization.
 - * Member of a task force to pinpoint communications problems within SGI, and propose solutions to the problems.
 - * Designed and implemented a Perl Form Maker and Form Generator application.
 - * Assisted in configuring a secure production web server.
- **Programmer/Analyst** **August 1998 - January 1999**
S-Matrix Corp. **Eureka, CA**
 - * Responsible for writing "design of experiments" software for Windows using Visual Basic.
 - * Lead the design and creation of a CD-Browser and a web based product user's guide.

- **Project Leader, Intern**
Lockheed-Martin/HSU

June 1997 - June 1999
Arcata, CA

- * Member of a team to create a Web User Interface in Java as a front-end to an Oracle database.
- * Responsible for delegating tasks, integrating code, developing server side functionality with JDBC, and maintaining an Oracle database.
- * Responsible for designing and implementing Java applets and applications, developing stored procedures in SQL, and creating CGI scripts for client/server interaction.

Professional Skills

- Security and Networking: Intrusion Detection Systems, network security monitoring, vulnerability scanning/assessment, networking protocols
- Programming Languages: C/C++, Java, Perl, SQL, PHP, Visual Basic, XML
- Operating Systems: Linux, Mac OS X, Windows XP/NT/98/95/2000/ME/XP, Solaris, OpenBSD, FreeBSD, Unix, Irix
- Software: Snort, Nessus, Ethereal, Netfilter, Iptables, Oracle, MySQL, postgresql, Apache, CVS
- Writing: government and commercial contract proposals, technical white papers, software user documentation

Publications

- Staniford, S., J. Hoagland and J. McAlerney, "Practical Automated Detection of Stealthy Portscans", Journal of Computer Security. Vol 10, Issues 1/2, 2002.
- C. Jason Coit, Stuart Staniford, and Joe McAlerney, "Towards Faster String Matching For Intrusion Detection or Exceeding the Speed of Snort", Proceedings of DISCEX II, 2001.
- Richard Feiertag, Sue Rho, Lee Benzinger, Stephen Wu, Timothy Redmond, Cui Zhang, Karl Levitt, Dave Peticolas, Mark Heckman, Stuart Staniford-Chen, and Joey McAlerney, "Intrusion Detection Inter-component Adaptive Negotiation", Computer Networks 34 (2000) 605-621.

Special Interests

- Professional: Internet Worms, Intrusion Detection Systems, IETF.
- Personal: guitar, piano, soccer, skiing, fishing, golf.

References available upon request