

## Objective

A key role in an entrepreneurial environment in which I can continue solving complex problems through the innovative use of technology.

## Summary

Computer Engineer and New Ventures MBA with over twenty years of professional software development experience covering every aspect of the field, a history of creating competitively differentiating technologies for new businesses, and excellent written and oral communication skills.

A creative problem solver who gets things done, an enthusiastic team player who takes pride in his work and can motivate others, and a top-notch developer with experience in a broad set of languages, platforms, and technologies.

## Specialties

- Software development from embedded C to web applications.
- Java (web and desktop/swing), C, C++, bash/shell scripting, javascript, html, xml, css, ant, make, . . .
- Cryptography, FIPS 140-2
- Networking from layer 2 debugging to large-scale wireless network architecture (802.11a/b/g)
- Balancing technology development and business needs.
- Learning new skills quickly and eagerly as required by business needs.

## Experience

### Rajant Corporation, Malvern, PA

**Software Development Manager** *May 2004 to Present (via Rajant contract with ROI, below)*

- **Software**
  - Lead the software development team to build embedded, Linux-based, wireless mesh networking system and associated administration and monitoring software.
  - Prioritize and assign software team development tasks.
  - Develop, communicate, and consistently meet development schedule.
  - Develop and coordinate device firmware, management software, and overall product architecture.
  - Conceive, design, implement, and document Rajant's management and monitoring API.
  - Recruit staff.
  - *Write great software.*
- **Customer-Facing**
  - Work directly with partners and key DoD and industry customers to ensure project success.
  - Demonstrate technologies to customers and solicit/incorporate feedback in product design.
  - Develop and conduct customer and staff training.
  - Provide third-tier customer support.

## Rajant Corporation, Malvern, PA (continued)

- **Internal**

- Identify new product opportunities.
- Review customer requirements and assist in development of RFP responses.
- Conduct technical reviews of company communications.

- **Security**

- Design/maintain product cryptographic architecture to ensure integrity and security of network and administrative communications to DoD standards.
- Obtain FIPS 140-2 product validation (one completed, two currently in progress)

Do all of the above in a resource-constrained startup atmosphere.

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## ROI Computer Services, Inc., Downingtown, PA

### **Director, Applications Architecture** *June 2000 to Present*

Manage the entire application lifecycle for software projects, including requirements definition with customers, system architecture, project planning/budgeting, development, deployment/migration, and ongoing customer support.

Provide technical sales support. Write project proposals and RFP responses.

Identify new opportunities. Draft patent applications for various technologies created by ROI and its partners. Demonstrate technologies to potential investors/partners of ROI and its clients. Recruit and hire developers. Constantly improve ROI software development practices and consulting offerings. Solve problems with software, from data-driven web applications with thousands of users to embedded wearable military network devices.

### **Software Architect / Technical Manager** *May 1998 - June 2000*

Designed and implemented custom software solutions; provided end user and technical sales support. Developed an extensible web portal framework based upon Lotus Domino R5.

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## Genesis Teleserv Corporation, Conshohocken, PA

### **Senior Information Manager** *September 1997 to May 1998*

Provided pre-sales technical support on data and voice networking technologies for key teleservice clients. Made architecture and software recommendations to clients. Identified opportunities to generate new revenue from existing clients.

### **Project Manager** *January 1997 to September 1997*

Provided data and voice network consulting services for clients. Designed and implemented office network for company headquarters and satellite operations.

## **Bell Communications Research (Bellcore), Red Bank, NJ**

### **Member of Technical Staff** *July 1995 to January 1997*

Provided network consulting services for Bellcore's clients (Regional Bell Operating Companies, government agencies, startup local service providers, foreign telephone companies). Presented technologies, provided tutorials, wrote user guides, developed network topology analysis software.

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## **FutureVision of America Corp., West Conshohocken, PA**

### **Project Engineer** *Internship, Summer 1993 to Spring 1995*

Designed and implemented software and hardware for services on an optic fiber-to-the-curb network laid by Bell Atlantic. Developed software and hardware prototypes for network devices. Developed patent applications for prototypes.

## Education

### **Penn State University, Great Valley, PA**

*MBA, New Ventures & Entrepreneurial Studies, August 2007*

- Cumulative GPA: 4.0

### **Lehigh University, Bethlehem, PA**

*B.S. Computer Engineering, Cum Laude, May 1995*

- Cumulative GPA: 3.48
- Dean's List, four semesters
- National Merit Scholar
- Member, Tau Beta Pi (national engineering honor society)
- Member, Eta Kappa Nu (electrical and computer engineering honor society)

## Personal

- Married, four children
- Myers-Briggs Personality Type: ENTP
- Two-Time Marathon Finisher (2001 Philadelphia Marathon, 2003 Marine Corps Marathon)
- Member, Philadelphia Java User Group
- Member, Triple Nine Society
- Avid woodworker
- Proficient in French

## Open Source

**President, Martian Software, Inc.** *March 2003 - Present*

Creator/maintainer of several open source projects, including:

- JSAP - A command line-to-Object parser for Java  
<http://www.martiansoftware.com/jsap>
- Trivial Persist - An in-memory database alternative with textual representation on disk  
<http://www.martiansoftware.com/trivialpersist>
- Nailgun - A command line application server  
<http://www.martiansoftware.com/nailgun>
- Rundoc and Snip - Ant tasks for generation of manuals and other user documentation  
<http://www.martiansoftware.com/lab>
- TarProxy - A unique economic and technological approach to combat spam  
<http://www.martiansoftware.com/tarproxy>  
<http://www.martiansoftware.com/articles/spammerpain.html>

## Other Highlights

- Submitted patch to HostAP open source access point software to dramatically improve stability of 802.11b radio links.  
<http://hostap.epitest.fi>
- Contributed Linux compatibility code, split client/server code, and embedded database code to Digital Media Jukebox.  
<http://www.mutchek.com/v/jukebox.html>
- Submitted patch to OpenSSL to correct PRNG seeding bug when operating in FIPS mode.

## Recognition

### Conferences

- Speaker, 2004 Spam Conference, MIT. Cambridge, MA  
Presented experiences with novel approach to combatting spam by reusing existing mail classifiers at SMTP time. (video and presentation available online) <http://www.spamconference.org/talks2004.html>

### Print

- Berg, Klaus-Peter. (title unknown at time of this writing) JavaMagazin, 4 Apr 2004. Open Source.  
<http://www.javamagazin.de>
- Bieber, Celeste. "Spam-busters sort out the fakes" / "Trapping Junk Mail in a Tar Pit" (sidebar) New Scientist, 7-13 Feb 2004. Technology Trends.
- Lemke, Tim. "Spam blockers want to make purveyors pay" Washington Times, 20 Jan 2004. Business.  
<http://washingtontimes.com/business/20040119-100617-6744r.htm>

### Web

- Slashdot front page, twice:  
<http://slashdot.org/article.pl?sid=03/03/02/1415257&mode=thread>  
<http://developers.slashdot.org/article.pl?sid=03/02/28/2033230&mode=thread>