

# Résumé of **DAVID J. ARONSON**

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**Intelligent, Creative, Diversely Experienced Software Engineer**

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## **SUMMARY:**

- Objective: Senior/Lead/Principal Software Engineer/Developer position in or near Northern Virginia
- Languages: Ruby, Python, Java, JavaScript, Perl, SQL, HTML, XML, C/C++, shell script
- Systems: Unix (Linux/Solaris/BSD/etc.), Mac OS X, Windows, XTS/STOP, OS/2, VMS
- Other: Secret clearance, Rails, AJAX, Agile, briefing/training, mentoring, security, leadership

## **EXPERIENCE:**

**Senior Software Engineer**, *Comcast*, Herndon VA, November 2009 to Present

Create and enhance network analysis and project management tools, to help company run smoothly.

- Enable trend analysis: create/enhance Ruby/Python/Perl programs to record device performance data
- Aided project analysis: wrote Rails web application to assist in project risk/effort/benefit analysis
- Streamlined data distribution arrangements: implemented central data file clearinghouse

**Freelancer** (evenings, weekends, and between positions), Fairfax VA, April 1990 to Present

Support clients, release products as Open Source, practice skills, and learn new ones.

- Serve clients: enhanced Python group email system; wrote fax-board tester, dBase III file repair tool, manuals, and websites; and installed, configured, repaired, and upgraded PCs and COTS software
- Release Open Source: JavaScript tools for Google Maps and Toastmasters clubs, Ruby “Kakuro Description Language” module, C++ physics units system, C unit-test harness, and more; see web site

**Senior Lead Software Engineer**, *BAE Systems IT*, Herndon VA, August 2004 to June 2009

Created cross-domain cyber-security solutions, for US-, foreign-, and quasi-governmental clients.

- Streamlined data guard implementation: created frameworks for custom data guards (traffic scrubbers)
- Served clients: created data guards; taught clients; wrote designs, tests, manuals, and other documents
- Improved skills of others: taught classes on CISSP preparation, other information security principles, STOP, guard frameworks, other BAE products, and software engineering; founded Toastmasters club
- Won Chairman’s Award for Innovation; nominated many times for that or Transferring Best Practices

**Senior Software Engineer**, *Secure Software*, McLean VA, August 2003 to May 2004

Created and enhanced security auditing tools (static analyzers) to find flaws in other software.

- Extended products: wrote Python plug-ins to find Java mobile code or file use, and C/C++ registry use
- Innovated product line: enhanced static analysis tool that inspected binaries, not source

**Senior Software Engineer**, *Cryptek Secure Communications*, Sterling VA, March to October 2001

Supported IPsec (Internet Protocol Security) Virtual Private Networks based on encrypting cards.

- Improved reliability: wrote device monitor to report freezes, save logs, and reset or failover to backup
- Improved product line: wrote requirements, use cases, and prototypes for new VPN console
- Educated colleagues / boss: presented competitive analysis of top ten IPsec VPNs’ management GUIs

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**Senior Software Engineer**, *3Com*, Reston VA, August 1999 to February 2001

Created and enhanced UM (Unified Messaging), other telephony, and testing software.

- Enhanced UM platform: added Internet Voice Messaging (discussion credited in RFC 3458)
- Innovated product line: maintained system for mobile notification of office voicemail
- Eased server load testing: co-wrote multi-process multi-threaded tool simulating 1400 users per PC

**Software Engineer**, *Template Software*, Dulles VA, January 1997 to August 1999

Enhanced libraries for SNAP (proprietary object-oriented language and development environment).

- Innovated product: added Object-Relational Mapping to Enterprise Application Integration product
- Improved product: designed new GIS data format and updated functions and utilities

**Software Engineer**, *Telemet America*, Alexandria VA, August 1995 to December 1996

Supported financial data/news delivery system.

- Enhanced service: added new data items to service, and new calculations to display
- Aided sales: wrote new sales contact tracking system

**Branch Chief of Systems Engineering**, *R&K Engineering*, Alexandria VA, March 1992 to July 1995

Supported real-property databases for assorted governmental clients.

- Enabled IRS facility analysis: developed flexible SQL query constructor and result display
- Enabled Army property decisions: wrote and ran SQL queries on Army real-property database
- Supported DoD property decisions: documented BRAC (Base Realignments And Closures) algorithms

**Consultant**, *COMTEK Services*, Silver Spring MD, March 1989 to April 1990

Created user interface of phone network monitor/configuration system and tested alarm propagation.

**Software Engineer**, *Mead Data Central* (now *LexisNexis*), Washington DC, May 1987 to January 1989

Created and enhanced communications protocol software and near-realtime software to receive, index, store, Boolean-text-search, and retrieve magazine and newswire articles.

**Assistant Programmer/Analyst**, *The BDM Corporation*, McLean VA, September 1985 to March 1987

Wrote and enhanced software for company and US military, intelligence, and commercial clients.

## EDUCATION AND TRAINING:

- BSCS (with Departmental Honors), *Beaver College* (now *Arcadia U.*), Glenside PA
- Further classes in **Agile Development**, **Design Patterns**, **OO Analysis**, **Data Visualization**, and more
- **Communication and Leadership**, *Toastmasters*; served as most club officers and Area Governor

## PROFESSIONAL AFFILIATIONS:

- Founder of *MARS* (*Mid-Atlantic Ruby Society*) and LinkedIn “*Plain Old C Programming*” group
- Contributor’s to *CERT*’s “*C Secure Coding Standards*” (acknowledged on web site and in book)
- Member of *IETF* (*Internet Engineering Task Force*), *DC-ISOC* (*DC Internet Society*), *NoVaRUG* (*Northern Virginia Ruby Users Group*), *NoVaJUG* (*Java*), and *NoVaLUG* (*Linux*)

## OTHER:

- **US citizen** with **final active Secret clearance (Department of Defense)**
- Also speak **fluent French** and some **Japanese** and **Spanish**
- Blog on **programming** at *Codosaur.us* and on **self-empowerment** at *Dare2XL.com*
- Life Member of **Mensa**; serve local chapter as **Publications Officer** and **Newsletter Editor**