

**GEOFFREY S. KNAUTH**  
Williamsport, PA — [geoff@knauth.org](mailto:geoff@knauth.org)

**Summary:** 35 years building applications and systems of every stripe. Over 15 years building web-based systems. Four years college teaching experience. I enjoy doing almost anything that matters.

**Skills:** C/C++, Java, Perl, Scheme, Lisp, Python, Ruby, JavaScript, Objective-C, Smalltalk, T<sub>E</sub>X. Oracle, PostgreSQL, MySQL, XML, web programming. GNU/Linux, Mac OS X, BSD, Solaris, Windows.

**Learning:** OCaml, Clojure, F#, Erlang, JQuery, Android/iPhone SDKs, C#, ASP.NET, Squeak.

**PROFESSIONAL EXPERIENCE**

**Lycoming College**, Williamsport, PA 08/06–05/10

*Computer Science Instructor*

- Taught: Introduction to Computer Science, Principles of Advanced Programming, Programming Language Design, Database Systems, Computer Networks, Introduction to Web-based Programming, Web-based Programming, Computer Organization / Machine Language, Introduction to Robotics.

**Interactive Supercomputing**, Waltham, MA 05/06–08/06

*Contractor*

- Optimized GNU Octave performance for parallel supercomputing.

**SFA, Inc.**, Virginia Beach, VA 1/04–2/06

*Senior Software Engineer*

- Helped SFA understand legacy military logistics application code I'd written or known, and associated business rules, to help SFA reshape the project using only Java and Oracle.

**BAE Systems**, Rockville, MD 5/02–12/03

*Systems Analyst*

- Continuing support and development of web-based military logistics system originally built at BBN.
- Reworked architecture to comply with latest DoD security requirements.

**BBN Technologies, Distributed Systems & Logistics, Verizon**, Cambridge, MA 10/95–5/02

*Senior Systems Engineer (Band 2L)*

- Developed web-based military logistics system that saved U.S. Government \$12.7 million and reduced processing time from 3–4 months to 5–10 minutes, using C, Perl, Java, C++, Scheme and Oracle.
- Adapted DARPA Cougaar intelligent agents to simulate fine-grained Bulk Fuels logistics problems.
- Helped launch successful advertising technology spinoff, Unicast Communications.

**Marble Associates, Inc.**, Waltham, MA 12/91–9/95

*Senior Associate*

- Developed globally distributed Wall Street emerging markets trading system.
- Wrote ParcPlace and Digitalk Smalltalk applications for two Fortune 100 clients.
- Converted financial aid mainframe system to client/server technology and Sybase.
- Made database-building compiler enhancements to speed understanding of large software projects.
- Developed API for DecisionBuilder<sup>TM</sup>, a Bayesian analysis tool with superior graphics and algorithms.
- Made kernel module enhancements for Teleconnect<sup>TM</sup> SLIP connectivity software.

**Camex/DuPont Printing & Publishing**, Boston, MA 11/87–11/91

*Senior Programmer*

- Source code “owner” of Sun-based flagship Breeze product, a display ad graphic workstation used to assemble pages for large metropolitan newspapers. Supervised work of 15 developers.
- Internationalized the Breeze product, which held 75% international market share.

**Envoy Systems Corp.**, Waltham, MA 12/86–11/87

*Programmer*

- Developed pioneering salesforce automation applications for Fortune 500 clients, distributing sales and inventory information from Oracle databases on corporate minicomputers to the first laptops.

**Résumé of GEOFFREY S. KNAUTH** (*page 2 of 4*), EXPERIENCE

**Independent Software Developer and Contractor**, Cambridge, MA 1/86–12/86

- WX Ltd., Jericho, VT. Wrote satellite weather data acquisition and analysis applications on IBM PC-ATs running DOS and Xenix.
- Garland Corp., Brockton, MA. Provided external code review. AT&T 3B2, Vax.
- Houghton Mifflin Co., Boston, MA. Put Swedish language database on IBM PC-AT.
- Harvard Graduate School of Education, Cambridge, MA. Administrative work on IBM PCs.

**Intentional Educations**, Watertown, MA 6/82–1/86

*Systems Manager and Programmer*

- Coordinated technical efforts of educational software company. Maintained a CompuStar network, Macintosh and Apple II computers, wrote C interfaces to Varityper, supported courseware developers.

**Nicholson Yacht Charters**, Antigua, West Indies, and Cambridge, MA 1978–1984

*Software Developer*

- Created accounting and scheduling applications for a yacht charter business, on the Sol 20, North Star Horizon, and IBM PCs. Volunteer pilot on search and rescue flights. Assisted French consul with translations, group visits and diplomacy.

### EDUCATION

**Harvard Extension School**, Cambridge, MA 1987–1989, 2004–2008

Graduate courses in Computer Science, Artificial Intelligence, Advanced Computer Graphics, Electronic Publishing, German.

**Northeastern University**, Boston, MA 1986

Graduate course in Unix Systems Programming.

**Harvard College '83, A.B.**, Cambridge, MA 9/79–8/85

Concentration: Economics. Extensive coursework in Slavic Languages and Literatures. Varsity Letter, Men's Heavyweight Crew.

**Choate Rosemary Hall**, Wallingford, CT 1975–1978

President Computer & Chess Clubs. Began programming in 1975. Russian prize. Crew Captain.

### PUBLIC DISCOURSE

**Lycoming College Math Colloquia**, Williamsport, PA

- 2010 Math Awareness Day speaker (8th graders), *Mathematics of Mapping* 03/10
- *Computational Complexity Classes* 01/10
- *A Brief History of Computing* (for Physics students) 10/09
- *Lego My Cube* (robotics demonstration) 11/08
- *Pixel Power* (image formats) 03/08
- *Using Java OpenMap and JScheme to Find a Missing Aircraft* 10/06

**Richard Stallman Talk at Lycoming College**, Williamsport, PA 03/09

Arranged and hosted RMS visit, and was his pilot.

**PittJUG Code Camp**, Pittsburgh, PA 10/06

Speaker: *Using JScheme and OpenMap in a Civil Air Patrol Lost Aircraft Search*

**MIT LL3 & LL4 Lightweight Languages Workshops**, Cambridge, MA 2002–2004

*Member, Program Committees 2003 & 2004*

Speaker, 2002: *Leveraging Libraries in Lightweight Languages: the JScheme Experience, Or Why Bambi Snuggles with Godzilla*

**PyCon DC 2003**, Washington, DC 3/03

Speaker. *Lessons Learned in Converting a Large C Program into Manageable Python Modules*

**Résumé of GEOFFREY S. KNAUTH (page 3 of 4), PUBLIC DISCOURSE**

- JavaOne 2002**, San Francisco, CA 3/02  
 Speaker. *ICIS: Redeploying a Military Logistics System to the Web*
- Free Software Conference**, Moscow, Russia 4/93  
*American Co-Chair*
- Arndt & Arndt**, Washington, DC 5/87–6/87  
*Russian-English Interpreter*
- Exhibited American furniture and answered questions about life in America to half of 250,000 visitors to United States pavilion at Stroyindustriya-87 trade show, Moscow, USSR.
- Mystic Seaport Museum**, Mystic, CT Summers 1977, 1978, 1980  
*Planetarium Lecturer*

**FAMILIARITY WITH TECHNOLOGY**

PROGRAMMING LANGUAGES			SYSTEMS, as programmer		
	Years	When		Years	When
C	33	1977→	Unix	32	1978→
Java	15	1995→	GNU	25	1985→
various assembler	15	1975→	Sun	19	1987→
JavaScript	14	1996→	Web	16	1994→
C++	13	1997→	Linux	15	1995→
Perl	13	1994–2006	Oracle	11	1986, 1997→
Scheme	11	1999→	Microsoft	10	1982→
Objective-C	8	1988→	DrScheme/Racket	8	2002→
Basic	8	1975–1982	Mac OS X	8	2002→
T <sub>E</sub> X	7	1986→	MySQL	8	2002→
Python	4	2003→	XML	8	2002→
Smalltalk	3	1993–1994, 2004	NeXTstep	7	1988–1994
Fortran	3	1975–1978	PostgreSQL	6	2004→
Lisp	2	1980, 1988	Early Mac	4	1984–1987
Ruby	2	2004→	CP/M	4	1978–1982
			J2EE	2	2004→
			Sybase	2	1993–1994
			BerkeleyDB	1	2008→
			VAX	1	1986

**AFFILIATIONS & INTERESTS**

- Fluent in Russian and French, passable German, some Chinese.
- Member ACM, IEEE, Usenix/Sage.
- Treasurer, Free Software Foundation, 1998–current. Co-founder, GNU Objective-C project.
- Member Civil Air Patrol since 04/2001. Member AOPA, EAA. Instrument-rated private pilot. CAP Squadron Commander, 2007–current. Board member Williamsport Regional Association of Pilots, 2006–current. Began flying in 1978.
- Member Cambridge Boat Club, Central PA Rowing Club. Coxswain on 1989 & 1994 U.S. Rowing Teams. Trained with U.S. National Team 1988–1995. Board of Directors, CRASH-B Sprints World Indoor Rowing Championships, 1984–current. Regatta Committee, Head-of-the-Charles<sup>TM</sup>, 1993–1995. Began rowing in 1974.
- Volunteer adult leader, Cub Scouts & Boy Scouts, Williamsport, PA, 2003–current.
- Volunteer rowing coach, Lycoming College, Williamsport, PA, 1999–2004.
- Volunteer rowing coach, Boston inner city youth program (Mandela Town Hall Health Spot), Community Rowing, 1994–1996.
- Volunteer tutor, Trinity After-School program, Williamsport, PA, 1999–2000, 2006.
- Volunteer reader, Recording for the Blind and Dyslexic, 1989–1999.

References available on request.

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