



Dr. Gregory V. Wilson

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Employment

- 2012–present Project lead for Software Carpentry, a volunteer organization that teaches researchers basic lab skills for scientific computing; editing and publishing Volume 2 of *The Architecture of Open Source Applications*, a collection of essays on the design of large software systems.
- 2011 Software engineer, Side Effects Software Inc. Worked as part of a team of eight to design and build a web application for users of the world's leading procedural animation tool while editing and publishing Volume 1 of *The Architecture of Open Source Applications*.
- 2010–2011 Project lead for Software Carpentry; edited *Making Software*, a collection which summarizes evidence-based results in software engineering; supervised three MSc thesis at the University of Toronto while an Adjunct Professor in the Department of Computer Science.
- 2006–2010 Assistant Professor in the Department of Computer Science at the University of Toronto. Taught graduate and undergraduate courses; developed a Professional Master's degree in Computer Science; reorganized the undergraduate software engineering curriculum; edited *Beautiful Code*, a collection of essays on software design; on the editorial board of *Computing in Science and Engineering* and *Doctor Dobb's Journal*; supervised six MSc theses at the University of Toronto; wrote a children's book for Scholastic Press titled *Bottle of Light*.
- 2004–2006 Wrote *Data Crunching*; rewrote the Software Carpentry course under a grant from the Python Software Foundation; led development of a web-based portal for undergraduate team programming projects while an Adjunct Professor at the University of Toronto; contributing editor with *Doctor Dobb's Journal*.
- 2000–2004 Design, implementation, documentation, and testing of Select Access, an access control and authorization product at Baltimore Technologies and Hewlett-Packard; contributing editor with *Doctor Dobb's Journal*; developed a new course on software design and supervised undergraduate honors projects at the University of Toronto.
- 1998–2000 Organized and ran Software Carpentry classes at Los Alamos National Laboratory; worked on SelectAccess for Nevex Software Technologies; editorial work for *Doctor Dobb's Journal*; published a children's picture book called *Three Sensible Adventures*.

1996–1998	Visible Decisions Inc., Toronto. Team lead for an IDE for building 3D data visualization tools.
1995–1996	Centre for Advanced Studies, IBM Toronto. Co-developed a C++ library for parallel and distributed computing; edited a book on C++-based parallel programming systems.
1992–1995	Post-doctoral work at the University of Oregon, University of Alberta, Australian National University (Canberra), Vrije Universiteit (Amsterdam), and University of Toronto while writing a book titled <i>Practical Parallel Programming</i> .
1986–1992	Edinburgh Parallel Computing Centre. Developed and parallelized large scientific applications for the Centre's industrial sponsors; supervised graduate and undergraduate theses; created and ran the Centre's Summer Scholarship Programme; developed an entry for the 1989 World Computer Chess Championships while completing Ph.D. part-time.
1985	Design Interpretive Division, Bell-Northern Research, Ottawa. Developed a real-time interface to a 3D digitizer for use in an office automation system prototype.
1984–1985	Developed signal processing software for Miller Communications in Ottawa.
1975–1983	Various part-time and summer jobs, including an NSERC USRA in 1982.

Education

1993	Ph.D. in Computer Science, University of Edinburgh. Thesis was <i>Structuring and Supporting Programs on Parallel Computers</i> .
1986	M.Sc. in Information Technology (Knowledge Based Systems), Dept. of Artificial Intelligence, University of Edinburgh. Thesis was <i>An Implementation of a Connection Method Theorem Prover for S5 Modal Logic</i> . Shared Howe Prize for best thesis in year.
1984	B.Sc. in Mathematics and Engineering (First Class Honours), Faculty of Applied Science, Queen's University, Ontario. Top student in graduating class.

Awards

- Winner of ComputerWorld Canada's "IT Educator of the Year" award, 2010.
- Co-winner with Andy Oram of 2008 Jolt Award for Best General Book (for *Beautiful Code*).
- University of Toronto Computer Science Student Union Teaching Award, 2004.
- Shared Howe Prize (best M.Sc. thesis in Artificial Intelligence), University of Edinburgh, 1986.
- Commonwealth Scholarship, 1985–86.
- University Medal, Queen's University, 1984 (top student in graduating class).
- Co-winner of A.B. Lillie Prize, 1984 (top student in Mathematics).
- Queen's University Provincial Scholarship (1980–1984).
- Dean's Scholar, Faculty of Applied Science, Queen's University (1982–1984).
- Jeffrey Scholarship, Department of Mathematics, Queen's University (1983 and 1984).
- Dean's Scholar, Faculty of Arts & Sciences, Queen's University (1981).
- British Columbia Provincial Scholarship, 1980 (stanine 9 out of 9 on examinations).

Technical Books

- Amy Brown and Greg Wilson (eds.): *The Architecture of Open Source Applications: Elegance, Evolution, and a Few Fearless Hacks* (two volumes), Lulu.com, 2011 and 2012.
- Andy Oram and Greg Wilson (eds.): *Making Software: What Really Works, and Why We Believe It*. O'Reilly, 2010.
- Jennifer Campbell, Paul Gries, Jason Montojo, and Greg Wilson: *Practical Programming*. Pragmatic Bookshelf, 2009.
- Andy Oram and Greg Wilson (eds.): *Beautiful Code: Leading Programmers Explain How They Think*. O'Reilly & Associates, 2007; winner of 2008 Jolt Award for Best General Book.
- Greg Wilson: *Data Crunching: Solve Everyday Problems Using Java, Python, and More*. Pragmatic Bookshelf, 2005.
- Gregory V. Wilson and Paul Lu (eds.): *Parallel Programming Using C++*. MIT Press, 1996.
- Gregory V. Wilson: *Practical Parallel Programming*. MIT Press, 1995.
- Arthur Trew and Greg Wilson (eds.): *Past, Present, Parallel: A Survey of Available Parallel Computing Systems*. Springer-Verlag, London, 1991.

Selected Papers and Articles

- Greg Wilson: "Software Carpentry: Lessons Learned". *F1000 Research*, 2014.
- Greg Wilson et al: "Best Practices for Scientific Computing". *PLOS Biology*, 2014.
- Eleni Stroulia, Ken Bauer, Michelle Craig, Karen Reid, and Greg Wilson: "Teaching Distributed Software Engineering with UCOSP: The Undergraduate Capstone Open-Source Project". *CTGDSD'11*, 2011.
- Jordi Cabot and Greg Wilson: "Tools for Teams: A Survey of Web-Based Software Project Portals". *Doctor Dobb's Journal*, October 2009.
- Greg Wilson: "How Do Scientists Really Use Computers?" *American Scientist*, Sep/Oct 2009.
- Jo Erskine Hannay, Hans Petter Langtangen, Carolyn MacLeod, Dietmar Pfahl, Janice Singer, and Greg Wilson: "How Do Scientists Develop and Use Scientific Software?" *Proc. Second International Workshop on Software Engineering for Computational Science and Engineering*, May 2009.
- David Matthews, Greg Wilson, and Steve Easterbrook: "Configuration Management for Large-Scale Scientific Computing at the UK Met Office". *Computing in Science and Engineering*, Nov/Dec 2008.
- Greg Wilson: "Those Who Will Not Learn From History..." *Computing in Science and Engineering*, 10(3), May 2008.
- D. Winter, B. Vinegar, H. Nahal, R. Ammar, G. V. Wilson, and N. J. Provart: "An 'Electronic Fluorescent Pictograph' Browser for Exploring and Analyzing Large-Scale Biological Data Sets". *PLoS ONE* 2(8): e718, 2007.
- Jorge Aranda, Steve Easterbrook, and Greg Wilson: "Requirements in the wild: How small companies do it". *Proc. 15th Int'l Conference on Requirements Engineering (RE'07)*, October 2007.
- Karen L. Reid and Gregory V. Wilson: "DrProject: a software project management portal to meet educational needs". *Proc. 38th SIGCSE Technical Symposium on Computer Science Education*, Cleveland, Ohio, 2007.
- Greg Wilson: "Where's the Real Bottleneck in Scientific Computing?" *American Scientist*, Jan.-Feb. 2006.
- Greg Wilson: "Extensible Programming for the 21st Century". *ACM Queue*, November/December 2004-05.
- Michelle Levesque and Greg Wilson: "Open Source, Cold Shoulder". *Software Development*, November 2004.

Sole or joint author of over 130 other articles and book reviews in academic journals, popular science magazines, newspapers, and trade publications, including *Doctor Dobb's Journal*, *IEEE Software*, *New Scientist*, and *The Independent*.

Children's Books and Fiction

- Ellen Hsiang and Greg Wilson: *And Then...* Lulu.com, 2011.
- Greg Wilson: "Still" *On Spec*, 22/2, Summer 2010.
- Greg Wilson: *Bottle of Light*. Scholastic Press Canada, 2008.
- Greg Wilson: "Controlled Release" *On Spec*, 19/4, Winter 2007.
- Greg Wilson: "...But With a Whimper" *On Spec*, 19/3, Fall 2007.
- Greg Wilson: *Three Sensible Adventures*. Annick Press, 1999.

Other Achievements

- Member, Python Software Foundation, 2010–present.
- Mentor for Google's Summer of Code, 2005–present (12 students); organized a series of articles on successful projects for *Doctor Dobb's Journal*, 2005.
- Supervised or co-supervised 9 M.Sc., 6 Afstudeer, and over 100 undergraduate theses at the University of Edinburgh, the Vrije Universiteit (Amsterdam), and the University of Toronto.
- Recruited, trained, and supervised 60 students while coordinator of Edinburgh Parallel Computing Centre's Summer Scholarship Programme.
- Ultimate frisbee, 1991-2003 (Toronto "C" Division championship team 2002).
- Competitor in 6th World Computer Chess Championship, Edmonton, 1989.
- Member, Queen's University Bands, 1980-83 (lead stick 1982).
- PADI Open Water Diver certification (1998).
- Past or current member/volunteer with the Canadian National Institute for the Blind, the Sierra Club, Amnesty International, OXFAM, the Bruce Trail Association, and the Green Party of Canada.

References available upon request.