DAVID ATKINS

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SUMMARY

- 12 years university faculty - teaching CS graduate, upper division, and intro courses
- Expert in UNIX, Windows, C, C++, Java, HTML, and Version Management
- 22 years experience in software development and research on large and small teams
- Extensive experience training developers in current technology
- Ph.D in Mathematics

PROFESSIONAL EXPERIENCE

UNIVERSITY OF OREGON - Eugene, OR   **2001 – 2004, 2005 – 2013**
Computer & Information Sciences – Adjunct Associate Professor

- Courses taught: Automata Theory, Programming Languages, Compilers, C++/Unix, CS I, II, III
- Chosen best teacher by graduating CIS seniors 2003, 2008, 2009, 2011, 2012.
- Technical infrastructure support for NSF funded Globally Distributed Software Development project, 2010-12..

AMERICAN UNIVERSITY IN CAIRO - Cairo, Egypt   **2004 – 2005**
Computer Science – Assistant Professor

- Courses taught: Programming Languages, Compiler Design

BELL LABORATORIES - Naperville, IL   **1986 – 2001**
Software Production Research - Member of Technical Staff

- Version Editor for software change management system.
  - Designed and implemented Version Editor that looks and feels like conventional UNIX editors, but provides access, while editing, to version information about the file being edited.
  - Promoted the use of the tool and continued enhancements to establish it as standard part of the development environment, resulting in several hundred million dollars of savings over ten years from increased developer productivity.
- Software visualization and data mining.
  - Engineered and coded Windows version of visualization applications with the same GUI as Unix versions, encapsulating platform specific differences to maximize source commonality.
  - Created and extended several visualization applications that led to a new venture company.
  - Defined data formats and crafted tools (C++, shell, awk) that collected change history data about tens of millions of lines of code in dozens of databases on several mainframe UNIX machines to provide data for visualization analysis.
- Produced a compiler for Mawl (a web authoring language), using an object oriented design in C++ to produce C++ target code.
- Developed web-based shared calendar and presence awareness tools to address problems of globally distributed multi-site software development, integrated with SIP VoIP technology.
- Implemented Java middleware layer between a Lucent speech platform and VoiceXML, providing a platform for writing IVR applications served by the web.
- Version control of research prototypes.
  - Reorganized source code, designed software build procedures and makefiles.
  - Trained other researchers in the use of the change management system and performed version administration and load building.
  - Devised packaging procedures for multi-platform delivery and availability of prototypes.

PROFESSIONAL EXPERIENCE (continued)

ANDERSON SOFTWARE GROUP - Leucadia, CA   (concurrent with Bell Labs) **1990 – 1999**
Senior Instructor
- Presented four day seminars on site to software developers at companies such as SGI, IBM, AT&T, HP, Xerox, ranging from C / C++ Programming to Object Oriented Design.
- Developed and taught UNIX Internals course.

COMPUTER TECHNOLOGY GROUP - Chicago, IL   **1984 – 1986**
Instructor
- Presented UNIX and C training seminars full time; authored C and Advanced C courses.

BELL LABORATORIES - Naperville, IL   **1979 – 1984**
Member of Technical Staff
- Designed and developed real time call processing software, software development tools
- Performed program administration and version management for large software projects.

Mathematics teaching positions   **1974 – 1979**
- U. of Kansas, U. of Cape Town, U. of Virginia, U. of Illinois (Chicago)

SELECTED PUBLICATIONS

Using Version Control Data to Evaluate the Effectiveness of Software Tools: A Case Study of the Version Editor, D. Atkins, T. Ball, T. Graves, A. Mockus, IEEE Transactions on Software Engineering, May 2002.

Version Sensitive Editing: Change History as a Programming Tool, D. Atkins, Proceedings of the 8th Conference on Software Configuration Management, 1998.

Measuring Technology Effects on Software Change Cost, D. Atkins, A. Mockus, H. Siy, Bell Labs Technical Journal, 5-2, April-June 2000.

Mawl: A Domain-Specific Language for Form-Based Services, D. Atkins, T. Ball, G. Bruns, K. Cox, IEEE Transactions on Software Engineering, May/June 1999.

Integrated Web and Telephone Service Creation, D. Atkins, T. Ball, T. Baran, M. Benedikt, K. Cox, D. Ladd, P. Mataga, C. Puchol, C. Ramming, K. Rehor, C. Tuckey, Bell Labs Technical Journal, Winter 1997.

Global Software Development: The Bell Labs Collaboratory, D. Atkins, M. Handel, J. Herbsleb, D. Perry, G. Wills, Invited presentation, International Conference on Software Engineering, Toronto, May 2001.

Achieving Speed in Globally Distributed Project Work, D. Atkins, M. Handel, J. Herbsleb, G. Wills, Human Computer Interaction Consortium, February 2001, Frazer, Colorado.

Experience with a Domain-Specific Language for Form-Based Services, D. Atkins, T. Ball, M. Benedikt, G. Bruns, K. Cox, P. Mataga, K. Rehor, USENIX Conference on DSLs, 1997.
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PATENTS

Apparatus and Method for Displaying Characteristics of Data Base Records, D. Atkins, T. Ball, S. Eick, G. Wills, issued September 2000.

Apparatus for Visualizing Program Slices, D. Atkins, T. Ball, S. Eick, G. Wills, issued August 1998.

EDUCATION

Ph.D. and **MA** in Mathematics from University of Kansas, Lawrence.   **BA** in Mathematics from College of Wooster, Ohio.   **Computer Science course work** at University of Illinois.