

**Programmer**

- I write system software and numerical software in Forth

**Data Scientist**

*Quid Inc., San Francisco CA*

- Wrote fast C-code variations on known methods of partitioning the vertex set of a weighted similarity graph
- Created Python tools with NetworkX and heuristic algorithms to compare partitions; and with SciPy to compare search result lists
- Visualized both kinds of comparison with PostScript plots made automatically
- Developed a method to infer associations between vertex labels in graphs described in US patent 9710544
- Wrote technical evaluations of free and commercial natural language proc. software

**Software Engineer**

*Newfield Wireless, Berkeley CA*

- Wrote C++ server software

**Programmer**

*Semel Institute for Neuroscience at UCLA*

- Processed large genomic data sets on the Hoffman2 cluster using Bash, Awk, and Unix-style tools
- Implemented graph algorithms in Python

**Lead Software Engineer**

*Mitretek Systems, Falls Church VA*

- Wrote public key infrastructure software in C++ for federal agencies
- Built an LDAP spider for X.509 cross-certificate webs using the Boost Graph Lib.

**Software Engineer**

*Leverage Information Systems, SF CA*

- Wrote Java server software for high-volume web sites with Linux, Apache, and MySQL
- Contributed to the open-source Locomotive Application Server

**Software Designer**

*Tandem Computers, Cupertino CA*

- Developed an intraweb document management application in Perl and C

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# David A. Smith

dsmith@alumni.caltech.edu  
406-203-8553

**Instructor**

*California State University, East Bay*

- Taught Math 2150, an introduction to Discrete Mathematics for students of Computer Science

**Visiting Assistant Professor**

*Grand Valley State University*

- Taught linear algebra, differential equations, and calculus
- Developed weekly computational exercises for calculus students

**Ph.D. Mathematics**

**Teaching & Research Assistant**

*Arizona State University*

- Dissertation: The first-fit algorithm uses many colors on some interval graphs
- Used GLPK, Matlab, Maple, Sage, Python, Tk, Haskell, and C
- Taught Discrete Mathematical Structures to computer science students
- Supervised an undergraduate honors project involving Java programming

**M.S. Mathematics**

**Lecturer, Teaching Associate**

*California State University, Long Beach*

- Graduate Dean's List of Scholars and Artists
- Taught Calculus 2 and 3 to computer science students

**B.S. Mathematics**

*California Institute of Technology*

- Studied manipulation in voting with computer programs in C
- Assisted in developing a novel application of optical fibers for the Mars 94 Oxidant Experiment