

# Jennifer M. Selby

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- Skills**      **Programming Languages:** Python, C++, L<sup>A</sup>T<sub>E</sub>X, HTML/CSS, Church, Scheme, Cairo, OpenGL, Tcl, Expect, SQL, Java, JavaScript, VHDL, Perl, i386 assembly, MCS 51 assembly
- Software:** Android, Linux/UNIX, MacOS X, R/Bioconductor, Amazon EC2/Elastic Map Reduce, Hadoop/Dumbo, subversion, git, Kerberos, bash, vi, emacs, make, g++/gcc/cc, gdb
- Experience**      **pMDsoft, Software Developer**      *2010-2011 San Francisco, CA*  
Updated a Struts-based web application using AJAX (Prototype). Began work on porting a BlackBerry/iPhone application to the Android platform.
- Navia Systems, Software Engineer**      *2009 - 2010 Berkeley, CA*  
Implemented and tested Bayesian generative probabilistic models in a novel, Church-like programming language, with Python wrappings. Developed a django-backed web interface and cairo- and OpenGL-based visualization APIs for a prediction and multilevel clustering tool. Ran large-scale data analyses through Amazon Elastic Map Reduce EC2 machines.
- Metacarta, Software Engineer**      *2004 - 2009 Cambridge, MA*  
Implemented, trained, validated, and improved Bayesian statistical models used in natural language processing, working primarily in C++ and Python. Maintained large PostgreSQL database of geographical information and training data.  
Developed tools for configuring and testing SSL, Active Directory, Samba, and Kerberos. Worked on systems for managing and securing document repositories.
- Sun Microsystems, Software Engineer**      *2003 - 2004 Burlington, MA*  
Developed system management software for the Sun Fire family of servers. Designed, developed, documented, and released extensible tools for embedded data storage. Sun University classes: Solaris System and Network Administration, Solaris Internals, Device Drivers, Kernel Crash Dump Analysis.
- MIT Information Systems, Kerberos Development Team**      *2001 - 2003 Cambridge, MA*  
Updated and reorganized user, system administrator, and installation guides. Synchronized code and documentation as necessary.
- Teaching**      **YMCA Y Scholars Tutor/Mentor**      *2005-present Berkeley, CA*  
Worked with high school students, primarily in math and science subjects.
- Student Information Processing Board**      *2003, 2004, & 2005 Cambridge, MA*  
Co-taught a two-week “Crash Course in C”
- MIT Experimental Studies Group Teaching Assistant**      *2001 & 2003 Cambridge, MA*  
Taught tutorials and graded tests for Structures & Interpretations of Computer Programming.
- Computer Assistant**      *2002 Cambridge, MA*  
Assisted in preparation of Operating Systems class at Tufts University.
- MIT Experimental Studies Group Calculus Instructor**      *2000 Cambridge, MA*  
Co-taught freshman calculus. Gave lectures and wrote and graded tests and problem sets.
- Education**      **University of California, Berkeley**      *2007-2009 Berkeley, CA*  
Independent of degree program  
**Coursework:** Linear Algebra (MATH110), Introduction to Probability and Statistics at an Advanced Level (STAT 200A & 200B), Biostatistical Methods (STAT C245C)
- Massachusetts Institute of Technology**      *1999-2003 Cambridge, MA*  
B.S. in Computer Science and Engineering  
**Selected Coursework:** Operating System Engineering, Network and Computer Security, Digital Systems Laboratory, Microcomputer Project Laboratory, Organic Chemistry, Science Policy and Environmental Management
- Activities**      **Northern California Women’s Hockey League:** Ice hockey coach and player.