

Michael J. Salib

34 The Fenway
Boston, MA 02215
(617) 437-1043

msalib@alum.mit.edu
<http://web.mit.edu/msalib/www/>

Objective To participate in the design and development of state of the art software and hardware systems.

Education Master of Engineering Massachusetts Institute of Technology
Cambridge, MA May 2003 – May 2004

Master of Engineering in Electrical Engineering and Computer Science.

Bachelor of Science Massachusetts Institute of Technology
Cambridge, MA September 1996 – May 2003

Bachelor of Science in Electrical Engineering and Computer Science. I left MIT for three years to work in industry.

High school student Christian Brothers Academy
Lincroft, NJ 1992-1996

Experience Research Assistant MIT CSAIL
Cambridge, MA May, 2003 – May 2004

I designed, built, and tested a wireless sensor network used for human tracking in urban environments. As part of this work, I published a paper that will appear in the International Journal of Telecommunications soon.

Student Researcher MIT AI Lab Dynamic Languages Group
Cambridge, MA May 2001 - Present

I designed and built a static type inferencer for the Python language. While still in the early stages, this system should open the door to high performance compilation techniques that have so far eluded the Python community. In addition, it will also enable the detection of run time errors statically, which should help improve program safety and correctness efforts. Although based on the most recent research in the field, my type inferencer makes several advances that I am currently preparing for publication.

Software Engineer ProfitLogic Inc.
Cambridge, MA April 2000 - January 2001

I designed and built large scale data processing and scientific computing engines used in ProfitLogic's flagship service. Our software set prices on several billion dollars of retail merchandise each week. Our clients included JC Penney's, Macy's, the Gap, Eddie Bauer, and Anne Taylor. My role was to implement genetic optimization systems and data warehousing components needed to make the operation work. I worked extensively on an Oracle data warehouse several terabytes in size as well as a Beowulf supercomputer running Linux.

High speed networking consultant NetGain LLC
New York City, NY February 1999 - April 2000

I worked as an on site consultant for large financial corporations optimizing mission

critical wide area networks and hunting down performance bottlenecks in global multi-tiered application environments. In general, my associates and I were called in when problems become too complex for the in-house staff and other consultants. In the course of my investigations, I've uncovered several instances of anomalous behavior where major vendors' TCP/IP stack, web browser, and web servers acted incorrectly. Our recommendations to those vendors resulted in application fixes that benefited the Internet community at large.

Summer Intern
Holmdel, NJ

AT&T Bell Laboratories
Jun 1997 - Sep 1997

Paid internship at AT&T Bell Laboratories, in the Undersea Systems Laboratory of B. Scott Jackson, developing an integrated testing and optimization system for a high speed, undersea, fiber optic communications system. I designed and built an extensible software test suite and integrated it with \$2 million worth of sophisticated test equipment. Using my test suite, I collected large quantities of performance data in order to completely characterize the behavior of the system. I used that data extensively to construct a model of the system behavior in Mathematica. In the process, I located several bugs and quirks in the preproduction system. After a detailed analysis of the model, I wrote an algorithm to calibrate and optimize the system receiver in the field. Currently, my algorithm is being used on the main hardware components of long haul undersea fiber optic communication systems that cost several billion dollars each.

Miscellaneous

Citizenship: US Citizen.

Grade Point Average: 4.8/5. (in major)

Computer Languages: Python, C, C++, VHDL, SQL, Java, NesC, MIPS Assembler, 8051 Assembler, Matlab, Mathematica, Scheme, Common Lisp, Haskell, Bluespec, LaTeX.

Operating Systems: Linux, TinyOS, Windows, Solaris.