

Michael A. Zhivich

17 Haskell St. / Westborough, MA 01581
mzhivich@alum.mit.edu / 508.335.6757

OBJECTIVE

To contribute to the success of a company by working on challenging assignments that leverage my experience and skills while expanding my knowledge of computer systems engineering.

EDUCATION

June 2005

Massachusetts Institute of Technology

Cambridge, MA

Candidate *Master of Engineering*, Computer Science & Electrical Engineering

Thesis: *Testcase Synthesis Using Code Instrumentation to Detect Buffer Overflows*

June 2004

Massachusetts Institute of Technology

Cambridge, MA

Bachelor of Science, Computer Science & Electrical Engineering

GPA: 4.9/5.0

Relevant Coursework: Distributed Computer Systems; Network Security; Cryptography;

Computer Networks; Operating Systems; Techniques in Artificial Intelligence; Algorithms;

Digital Systems Laboratory; Signals & Systems; Communication, Control & Signal Processing.

SKILLS

Languages: Java, C/C++, Expect, Perl, Scheme, SQL, x86 assembly, VHDL.

Operating Systems: Linux, Unix, Windows NT/2000/XP/CE, Mac OS X.

Web Technologies: HTML, XML, XSLT, JSP. **Databases:** MySQL, PostgreSQL.

EXPERIENCE

January 2004 - present

MIT Lincoln Laboratory

Lexington, MA

Research Assistant

- Designed and implemented configurable random message generator as part of a testing framework to detect buffer overflows in Jabber Instant Messaging Server.
- Modified and augmented a buffer bounds-checking library for the GNU C Compiler (gcc).
- Evaluated the effectiveness and performance of existing dynamic buffer overflow detection tools by designing and implementing a collection of testcases with variety of variable-sized buffer overflows.
- Designed and implemented a test suite to simulate security breaches via buffer overflow exploits.

Summer 2003

Amazon.com

Seattle, WA

Software Development Intern

- Designed prototype of transactional distributed task management system.
- Designed and implemented a unified web portal for forecasting, planning and purchasing operations.
- Designed and implemented a Java Web application to gather inventory statistics for fulfillment centers.

1998-2002

NMS Communications

Framingham, MA

Engineering Intern

- Designed and implemented an automated test of clock failure and fallback scenarios.
- Designed and implemented an interactive demo to place and receive calls using Microsoft TAPI 2.0.
- Designed and implemented a Telephony Switching application for routing calls between multiple boards on H.100 bus for different telephony protocols (PBX simulation).

AWARDS AND ACHIEVEMENTS

Eta Kappa Nu engineering honors society.

2000-2004 Massachusetts Telecommunications Council Scholarship Awards.

2000-2004 Dean's List awards. Bausch & Lomb Science award from University of Rochester.

INTERESTS AND ACTIVITIES

Alpha Epsilon Pi fraternity, MIT Symphony Orchestra (cello), Cambridge City Days, sailing, skiing.

Fluent in Russian; Conversational knowledge of French.