

# Eric J. P. Mumpower

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## Experience

### **Permabit**

*Senior Systems Engineer*

*Cambridge, MA  
2001-2002, 2003-2004*

Architect and technical lead for systems engineering and support. Specializations: systems software, security.

- Specified, designed, and developed standalone media for complete install/config of clustered Unix-based appliance product. Drove process to establish requirements and design criteria. Designed and implemented tools for automated installation, configuration, and media-image generation.
- Developed flexible modular framework for rapid net-install and incremental maintenance of systems, for a heterogeneous computing farm of roughly 150 Linux systems.
- Modified Linux kernel to enable use of bleeding-edge hardware. Fixed bugs as necessary in various open-source software. Performed integration of version control, bug tracking, email, and instant messaging services, creating an enhanced development environment.
- Acted as expert resource on issues pertaining to systems software and networking, as relevant to product specification and implementation.

### **Arepa.com, Inc.**

*Senior Systems & Network Administrator*

*Cambridge, MA  
1999-2001*

Technical lead for in-house systems support and engineering. Security specialist for in-house systems and field-deployed services.

- Created automated tools for systems installation and configuration, enabling a small team with limited skills to rapidly deploy roughly 100 fully-configured Solaris systems.
- Customized, developed, enhanced, and integrated systems software.

### **Cygnus Solutions**

*Systems/Network Administrator*

*Cambridge, MA  
1996-1999*

Key member of a small team providing support on a wide variety of Unix platforms to Cygnus technical staff on four continents. Balanced a wide variety of systems/network administration responsibilities. Security specialist.

- Ported software packages to a variety of archaic, obscure, or bleeding-edge hardware/OS platforms, to provide a consistent, well-supported environment for all technical staff. Automated menial portions of these procedures.
- Integrated and deployed secure remote access tools, tailored to fit Cygnus' needs and security model. Created user-friendly documentation for usage and troubleshooting.
- Became self-educated CVS (Concurrent Versioning System) expert, anticipating the need for such a role upon the departure of former specialist. Provided timely critical expertise to project integrating CVS with bug-tracking system.

### **BBN Planet**

*Systems/Software Developer*

*Cambridge, MA  
Summer 1995*

Systems engineer for design, deployment, and support of initial versions of a new web-hosting platform. Special focus on automation and establishment of standard procedures.

**MIT Student Information Processing Board***Volunteer Webmaster*

Cambridge, MA

1994-1996

Shared in the maintenance and administration of www.mit.edu. Implemented various administrative tools; developed CGI scripts providing then-unique functionality.

**MIT Department of Computer Science/Electrical Engineering***Computation Structures (6.004) Lab Assistant*

Cambridge, MA

1994-1995

Tutored students in construction and debugging of 8-bit computers from TTL components.

**MIT Artificial Intelligence Laboratory***Webmaster*

Cambridge, MA

Summer 1994

Advocated Web publication in an era when many lab staff/students were completely ignorant of the existence of the Web. Server administration, CGI scripting.

**ISSC (wholly owned subsidiary of IBM)***Helpdesk Automation Assistant*

Atlanta, GA

Summers 1992-1993

Assisted in automation of network management. Retooled software of VM/CMS-to-digital-pager gateway. Learned several languages for use in automating services and procedures.

*Education***MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

Cambridge, MA

Bachelor of Science in Computer Science and Engineering, 1992-1996, 2002-2003

Master of Engineering in Electrical Engineering and Computer Science, 2004-2006

*Masters' Thesis:* FITSL: a Language for Directed Exploration and Analysis of Sequence Data

*Skills*

**Languages:** C, Lisp, Perl, Scheme, HTML,  $\LaTeX$ , Java, CLU, generic microcode and nanocode, various assembly codes

**Operating Systems:** UNIX (AIX, HP-UX, Irix, RedHat and Debian Linux, NetBSD, OSF/1, OS X, Solaris, SunOS, Ultrix)

*Relevant Coursework*

Computer System Engineering, Computer Language Engineering, Operating System Engineering, Computer Networks, Network and Computer Security, Cryptography and Cryptanalysis, Digital Systems Laboratory, Laboratory in Software Engineering, Artificial Intelligence, Introduction to Algorithms, Linear Algebra, Probabilistic Systems Analysis, Circuits and Electronics, Signals and Systems, Computation Structures, Laboratory in Holographic Imaging

*Awards*

**Signals and Systems (6.003) and Probabilistic Systems Analysis (6.041):** Letters of commendation for outstanding performance.

**Computation Structures (6.004) Design Contest** ("*Largest speedup in the x-y plane*")

**Contest goal:** Speed-optimize a breadboarded lab kit containing an implementation of an 8-bit discrete-logic microcoded bus-based architecture emulating an Alpha-like instruction set. **Contest entry:** Uniquely "optimized" a kit by adding motors and sensors. While it competed in the contest, the kit explored the floor of the room, communicating with the referee computer via a 25' cable.