

# Forest Bond

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forest@alittletooquiet.net ◇ <http://www.alittletooquiet.net>

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## Education

### **B.S. Electrical Engineering**

**05/2003**

Concentration in Computer Engineering, Minor in Mathematics  
The University Of Vermont, Burlington, VT

## Employment History

### **Logic Supply, Inc., Waterbury, VT**

**04/2005 – Present**

Engineer, Lead Software Developer

While my initial role in the company was modest, I quickly assumed a leadership position and became solely responsible for development and administration of the company's IT systems.

- ◇ Managed company-wide open-source IT infrastructure, including MySQL, Apache httpd, Python, PHP, and Samba running on Debian, Ubuntu, and Red Hat Enterprise Linux systems.
- ◇ Performed administrative duties and assisted with hiring efforts, project management, employee training, and business decisions.
- ◇ Provided high-level technical support and consulting services to business customers, including Linux and hardware support.
- ◇ Maintained and augmented customer-facing retail website and the administrative interface accompanying it. This extensive site was written in PHP, and its codebase consisted largely of legacy code originally forked from a popular open-source package, osCommerce. Completed several high-profile projects, including a custom ordering system, a procurement system, and a rewrite of much of the front-end code using Smarty templates, with a focus on cruft-free URLs, proper use of HTTP, and standards-compliant design.
- ◇ Solely developed Linux-based test software that was used to perform quality assessments of all outgoing computer systems. The application was implemented in Python and provided an extensible plugin architecture enabling easy addition of new functionality, as well as flexible data collection via an XML-RPC interface. This ran on a robust platform based on Debian/Ubuntu and was configured to boot from a variety of portable media and load entirely into memory for convenient utilization.
- ◇ Implemented intranet web applications using Python and Django that provided access to critical business data including system testing information and phone system usage statistics.
- ◇ Completed design of an add-on watchdog timer module intended for use with standard PC hardware, including circuit design and PCB layout.

### **IBM Corporation, Williston, VT**

**06/2001 – 01/2004**

Intern, Product Data Solutions & Architecture

As an intern, my role was largely supplemental. However, I gained valuable experience working on large projects as part of a team.

- ◇ Took part in development of a large data processing application.
- ◇ Contributed HTML content for internal web-based help and training system.

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## Skills

### Electronics

Working knowledge of digital and embedded design; some familiarity with analog electronics. Thorough understanding of logic interfacing and integration of peripheral devices such as sensors, LEDs, LCD displays, and small DC motors. Experience also includes printed circuit board layout. Familiar with standard laboratory equipment.

- ◇ Tools: gEDA, GNU PCB, Kicad, PSPICE, Electronics Workbench

### Software Development

More than a decade of programming experience. Fluency with topics including object-oriented and procedural design, data structures, algorithm efficiency, higher-order functions, meta-programming, embedded development, artificial intelligence, pattern recognition, web services, and HTTP correctness. Extensive knowledge of typical Linux system structure, especially Debian and Ubuntu systems.

- ◇ Platforms: Intel x86, Motorola and Microchip MCUs
- ◇ Programming & Query Languages: BASIC, Python, C, C++, Assembly (MIPS, 68HC11), Javascript, PHP, Lisp, Shell Script (sh, bash, ksh), awk, XSLT, SQL (MySQL, sqlite3)
- ◇ Publishing & Markup Languages:  $\LaTeX$ , XML, HTML, XHTML, CSS, ReST
- ◇ Tools: Microsoft Visual C++, GNU Toolchain (gcc, gdb, gasm, make), various architecture-specific assemblers

### Systems & Networks

Eight years experience maintaining Debian and Ubuntu servers providing a variety of network services. Twelve years experience building and repairing personal computers.

- ◇ Software: DNS (BIND), DHCP (ISC dhcpd), mail (exim, qmail, postfix), web (Apache httpd), Samba, CUPS, Linux packet filtering (iptables)

### Computer Skills

- ◇ Operating Systems: Microsoft Windows, DOS, UNIX (AIX, GNU/Linux)
- ◇ Office Applications: Microsoft Office, OpenOffice.org, Lotus

### Miscellaneous Technical Skills

- ◇ CAD: AutoCAD, Q-CAD
- ◇ Image Editing: Adobe Photoshop, JASC Paint Shop Pro, The GIMP
- ◇ Digital Audio: Emagic Logic Audio, Cool Edit, Ardour, mhWaveEdit

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## Personal & Open-Source Projects

I've been involved with and have contributed to a variety of well-known open-source projects, including Ubuntu. I've written a few open-source programs, which I've made available on my website. That website, and a few others created for friends, we written from scratch using Django.

- autosmbmnt** Automatically mount & umount SMB network file shares.
- magicpipe** Pipe data through a shared memory region.
- moosicast** Network audio server (wrapper for moosicd).
- sclapp** Framework for simple Python command-line programs.
- teudng** Python XML documentation generator.

## References

Available upon request.