

CHRISTOPHER PEPE

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KNOWLEDGE

Disciplined and highly adaptive developer who is able to quickly learn new languages and technologies. Drawing on five years of professional experience developing for various linux platforms, 8-32 bit embedded systems, and platform independent technologies. Experienced Electrical and Mechanical Engineer.

Recently specialized in data abstraction and unification within Zimbra, Active Directory/OpenLDAP, UNIX shell accounts, and custom services utilizing web service and RPC interfaces.

Linux Platforms	Core Languages	Server Technologies	APIs, Frameworks, Standards
<ul style="list-style-type: none">CentOS/RHELGentooUbuntuGeneric Platforms2.6.x Kernel DriversuClinux Embedded	<ul style="list-style-type: none">PythonC/C++PerlBash	<ul style="list-style-type: none">Nagios MonitoringApacheSambaNFSBindTwikiTracAtlassian JiraAtlassian Crowd	<ul style="list-style-type: none">LDAPXML-RPCSOAPRESTTurbogearsDjangoAJAX (HTML, CSS, Javascript, XML)epydocSubversion/CVSSSL

EMPLOYMENT HISTORY

Independent Consulting, Durham, NC, February 2007 - Present

Provide engineering services in multiple disciplines.

Notable Projects:

- Developed inexpensive Ebook reader prototype based on ATmega32, SD card, and Kent Display CHLCD, software in C
- Developed multitouch prototype platform and custom software libraries using touchlib and FTIR display, software in C++
- Developed Proximity Sensor Array for measuring a hand above the surface of the array, AVR with serial output to PC
- Developed brighter, configurable, IR LED array for use with Wiimote
- Evaluated Atlassian Crowd for Service Provisioning and Single Sign On

Software Engineering Consultant, Brandeis University, Waltham, MA, September 2007 - March 2009

Designed and Developed software platforms for critical university systems. Presented designs and refined specifications with customer but largely worked independently. Leveraged similar concepts across projects such as plugin support, auditing, threaded system isolation, and a number of other concepts.

Notable Projects:

- Service Provisioning - XML-RPC service to manage user accounts in arbitrary systems
 - Threaded python system service; interfaces with Zimbra, OpenLDAP, Active Directory, Linux shell server, and custom XML-RPC service. Deployed to RHEL (linux) server.
 - Released under GPL
- Emergency Notification System - Unified interface controlling arbitrary notification systems
 - Threaded python webapp using Turbogears proxied through apache, leveraging AJAX design; interfaces with 3rd party websites via REST, custom XML-RPC emailer, and generates RSS feed. Deployed to Gentoo (linux) server.
- Cisco CallManager Demo - Developed RSS feed of users missed calls for CIPTUG Demonstration
 - Python CGI script developed as novel use of phone system
- Hardware Modification of Cisco Phone and commercial call box into more robust intercom

Engineer, Boston Engineering Corp, Waltham, MA, June 2004 - September 2007

Developed applications and appliances from pure analog systems to standard servers. Worked as part of a team on projects including peer review at every level of design and implementation. Required adaptive, creative thinking in a fast paced firm. Developed strong habits for documentation, and clean, elegant software and hardware design.

- EE
 - Mixed Signal/Digital Circuit Design
 - Full Prototype Design
 - Circuit Design and Schematic Capture
 - 2 & 4 Layer PCB Layouts
 - Component Selection and acquisition
 - PCB Assembly including fine pitch SMT parts

- Interface Circuit Design
- Software Development
 - Python - Embedded Drivers and Web 2.0 apps on Blackfin running uClinux
 - C/C++ - Embedded drivers and applications for HC12 and Atmega32/ATtiny26
 - Embedded Linux on ARM and Blackfin Processors
- IT
 - Desktop Support for 25 Windows 2000 Workstations
 - MeetingMaker Server Administrator
 - Journyx and Jira Administrator
 - Software development
 - Python - Business Systems monitoring using Nagios and Django
 - Perl - Nagios plugins for 3Ware RAID, memory, Generic SQL Queries
 - Bash - Nagios Plugins, Automount Configuration, CSV to MySQL Importer
 - Vbasic 6.0 - Automated Exporter from Peachtree to CSV files

NMCI Contractor, QualxServ, Brunswick, ME, September 2003 - May 2004

- Navy and Marine Corps Intranet Deployment/Orientation Lead
- Oversaw the installation of Navy and Marine Corps Intranet computers
- Coordinated a team of Deployment Technicians
- Troubleshoot and corrected various software/hardware/network issues
- Assisted Base Ops in resolving Trouble Tickets

IT and Desktop Support, Counseling Service of Addison County, Middlebury, VT, June 1999 - August 2003

- Maintained 70 client Windows network with varied hardware/software configurations
- Upgraded/Serviced/Repaired clients
- Backup Exchange Server
- Taught computer related classes

Engineering Intern, Nexus Custom Electronics, Brandon, VT, June 2001 - August 2001

- SMT Machine Operator
- Thru-Hole Soldering
- QA/Rework Technician
- Engineering Assistant

EDUCATION

University of Vermont, Burlington, VT, Graduated 2003

Major: BS of Mechanical Engineering
GPA: 3.62/4.0

University of Vermont Honors: Dean's Merit Scholar, Tau Beta Pi, Dean's Student Council

VOLUNTEER ACTIVITIES

SEEDS Community Garden, Durham, NC, August 2008 - Present

SEEDS is a community outreach non-profit that specializes in teaching local youths life skills and values through gardening. Weekly duties include maintaining the garden by constructing new equipment and structures, turning compost, weeding, mulching, and constructing new garden beds. Often utilize engineering background to solve problems. Developing a mushroom cultivation program to increase the capabilities of the garden and provide an alternative revenue stream.

buyitlikeyoumeanit.org, Boston, MA, February 2008 - Present

Consumer awareness group providing user driven review system to rate products and companies by a number of metrics. Develop python modules and system components as needed. Developed SMS messaging system using smtplib. Developed XML-RPC module to query and present data from upcdatabase.com based on a products EAN (code system that replaced UPC codes).