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Executive Summary

Developer with over 20 years of experience writing software in multiple different languages. A strong focus on Web development, especially writing software to connect systems. Work environments have been heterogeneous (Windows, OSX, and several flavors of Linux/UNIX), and mixed locations (all local to all remote teams).

Relevant Job History

Weight Watchers - Systems Engineering Lead

New York City, NY - 2014-2015

- Developed lightweight monitoring tool for use within my group.
- Configured Vormetric products to ensure HIPAA compliance for customer data.
- Worked to transfer from Rackspace Cloud to Openstack based private cloud.

OrcaTec, LLC - Developer

Atlanta, GA (Telecommute) - 2012-2014

- Developed advanced search tool using Python, TurboGears, and jQuery.
- Created new document production framework from scratch.
- Spearheaded conversion from YUI 2 to jQuery and jQueryUI.
- Reduced multi-hour SQLAlchemy bulk database jobs to minutes.
- Found major security hole (remote code execution) and closed it.
- Debugged and resolved memory issues that were causing systems to shut down.
- Incorporated memcached into our stack to handle sessions and cached data.
- Installed and configured WSO2 Identity Server for our OpenID implementation
- Switched web server from Paster to Apache with mod_wsgi.

Choopa.com - Developer

Sayreville, NJ - 2012

- Developed library to manage OpenStack nodes, and gather billing information.
- Built Nagios configuration file generator for in-house web interface for Nagios.
- Configured Bacula backup system as replacement for custom backup scripts.
- Reconfigured Nagios monitoring, reducing full check from 8 hours to 2 minutes.

6th Avenue Electronics - Systems Administrator, DevOps Engineer

Springfield, NJ - 2005-2008, 2011

- Successfully lead migration from SAP to Tyler Point of Sale system.
- Developed Python validation scripts for data going from SAP into Tyler.
- Automated configuration options within Tyler that could not be done via import.
- Developed Python program to copy sales data from Tyler POS to PostgreSQL.
- Installed and configured Zenoss for full systems monitoring.
- Implemented VMware Virtual Infrastructure 3.

For more history going back to 1995, please visit my website at http://www.icelus.org/

- Maintained Tyler POS/ERP system on HP-UX (and, later, Linux).
- Maintained Active Directory, including implementation of group policy.

Datapipe, Inc. - UNIX Developer

Jersey City, NJ - 2008-2011

- Created reporting system called StorageWeb (using TurboGears), enabling new revenue stream.
- Developed Python app named unixops, allows server access via one time SSH keys.
- Optimized PostgreSQL on FreeBSD. Bulk inserts reduced from hours to 20 minutes.
- Debugged Python, FreeBSD, Apache, and modwsgi working together.

Diversified Systems - Systems Adminisrator / Developer

Hackettstown, NJ - 2002-2005

- Developed GUI to new software system using PHP, Apache, and Mozilla.
- Automated sending faxes to techs, saving five hours/day (in a 10 person office).
- Deployed Unattended, an automated Windows installation system.
- Implemented HylaFax fax server for incoming and outgoing faxes, allowing electronic receipt of over 200 pages of faxes per day from field technicians.

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Specific Skills

Software Configuration Management Tools

	Time Used	Last Used	Proficiency
Git	2 years	2014	Fair
Mercurial	4 years	2014	Good
Subversion	2 years	2010	Good

Markup Languages

	Time Used	Last Used	Proficiency
CSS	2 years	2014	Fair
HTML	1 years	2014	Very Good
XML	2 years	2011	Fair

Programming Skills

	Time Used	Last Used	Proficiency
Object-Oriented Design	8 years	2014	Very Good
Object-Oriented Programming	8 years	2014	Very Good
Refactoring	4 years	2014	Very Good

Database Skills

	Time Used	Last Used	Proficiency
PostgreSQL Database Administration	1 year	2011	Fair
Relational Schema Design	5 years	2014	Very Good
Structured Query Language (SQL)	12 years	2014	Very Good

Operating Systems Administered

	Time Used	Last Used	Proficiency
Linux (Debian, RedHat, Suse, Ubuntu)	12 years	2014	Excellent
Microsoft Windows (2008/7/Vista/2003/XP/NT/98/95)	12 years	2011	Very Good
UNIX (Solaris, AIX, HP-UX)	5 years	2011	Very Good

Database Servers

	Time Used	Last Used	Proficiency
MySQL	3 years	2014	Fair
PostgreSQL	5 years	2011	Fair
Microsoft SQL Server	3 years	2008	Fair

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Applications

	Time Used	Last Used	Proficiency
Ipswitch What's Up	2 years	2008	Good
Nagios	3 years	2012	Good
OpenStack	<1 year	2012	Fair
VirtualBox	3 years	2014	Good
VMware	6 years	2011	Fair
Zenoss	<1 year	2011	Fair

Networking and Security

	Time Used	Last Used	Proficiency
Checkpoint VPN	2 years	2007	Fair
Cisco	3 years	2011	Fair
Firewall Design	5 years	2011	Good
TCP/IP	10 years	2014	Very Good

Programming and Scripting Languages

	Time Used	Last Used	Proficiency
Bash	6 years	2014	Good
C/C++	12 years	2009	Good
Java	1 year	2014	Fair
Javascript	2 years	2014	Good
Perl	6 years	2012	Fair
PHP	2 years	2012	Fair
Python	6 years	2014	Excellent

Education

Bachelor of Science in Computer Science, 2000
East Stroudsburg University, East Stroudsburg, Pennsylvania

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Project History

Advanced Search Tool

Period	2014
Company	OrcaTec, LLC
Tools	Python, jQuery, jQueryUI
Platform	Server: TurboGears, Browser (Cross Browser)

At OrcaTec, the primary tool we provided to our customers was the ability to search collections of documents quickly. In addition to having simple search tools, we also had a helper tool in the "Advanced Search".

This tool allowed the user to search based on a dozen different fields, but was still limited and fragile. It was unable to help the user build queries which combined different fields in a single clause. In addition, it had issues with encoding <> in email addresses, and did not support drag and drop on all of our supported browsers.

When this project was completed, this tool had transformed noticeably. It now is its own miniature investigative tool, allowing customers to easily search through collections of documents. One customer reported narrowing their searches from 80,000 possible documents down to under 2,000 within an hour through use of this tool. Due to extensive test coverage when the code was published, even the problems that were found were quickly fixable. All of this was accomplished while reducing the total code for it by 50%.

- Debugged issues with drag/drop on mobile browsers.
- Designed new interface for maximum flexibility, and to allow easy refinement of queries as they are being built.
- Incorporated user feedback to improve that design.

StorageWeb

Period	2010
Company	Datapipe
Tools	FreeBSD, Python, Apache, PostgreSQL, TurboGears
Platform	FreeBSD, Web Browser

Datapipe manages thousands of servers. Many of these servers are connected to various shared storage systems, including 3Par, Isilon, and backup servers. Datapipe required an ability to do reporting on what data was being stored on these systems for each client, and then report that data back to billing. StorageWeb was written to fill that need.

- Debugged issues with Python, FreeBSD, Apache, and modwsgi. Turned out to require specific compilation options to get these all working correctly.
- Developed web interface that would allow users to drill down and see how the storage was being used (by client, by server, by data center, by storage type).
- Developed multi-threaded backend daemon which connected to the various storage systems and gathered the data about the stored data for reporting.
- Developed backend daemon that pushed aggregate data to the billing system, allowing billing to finally happen for all clients.

Paster to Apache/mod_wsgi Conversion

Period	2013
Company	OrcaTec, LLC

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Tools Python, Apache, mod_wsgi, Paster
Platform Ubuntu Linux

Paster is meant to be used in a development environment, allowing the developer to use a (single threaded) lightweight, easily managed webserver while writing code before it goes to production. At OrcaTec, we were using Paster both in development and in production. Due to the demands being placed on Paster (in many instances, loading up documents that were over 100M), the entire system could appear (to one user) to freeze up due to it responding to a request from another user.

After analysis, we were able to determine that Paster was no longer suitable for our needs. Since Apache, with mod_wsgi, provides an at least adequate performance web server (in comparison to others like Nginx), and the Apache configuration was already known to the team, we chose to switch from Paster to Apache. This allowed us to have Apache itself serve up static files (like images, css files, and javascript files), leaving the dynamic pages to the Python code.

- Debugged threading/locking/memory usage issues with Paster.
- Recompiled and repackaged Python 2.6.8, Apache, and mod_wsgi for use with Ubuntu 10.04.
- Developed automatic Apache configuration for use within our local stack.

SAP to Tyler Conversion

Period 2011
Company 6th Avenue Electronics
Tools AutoIt3, CentOS Linux, Python
Platform Server: CentOS Linux, Client: Windows

6th Avenue Electronics found that SAP was not a workable solution for them. The decision was made to switch back to the Tyler POS system, clearing out old mistakes and improving maintainability. I managed the technical aspects of the migration, while my immediate managers handled the business aspects.

Due to the costs associated with SAP, we had just over three months, in total, to complete the transition. We were successful.

- Wrote several one-off scripts to check data that was sent in various Excel spreadsheets. Validate that all entries in column A of File 1/Sheet 1 are in Column C of File 2/Sheet 1.
- Used AutoIt3 to automate the update of several items that could only be keyed into the client. No import existed at all. This reduced work from several hours down to an hour (including the initial script creation).
- Developed an automated installer that was used to handle installing all components (receipt printer, fonts, initial configuration) on every machine in the company.
- Worked with Tyler Retail Systems to configure the server properly.
- Developed snapshot backup strategy that reduces downtime for Tyler to mere minutes per night.

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