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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.

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Michael J. Pedersen [m.pedersen@icelus.org](mailto:m.pedersen@icelus.org) 908-718-1337

- 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 Administrator / 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
<a href="#">Git</a>	2 years	2014	Fair
<a href="#">Mercurial</a>	4 years	2014	Good
<a href="#">Subversion</a>	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
<a href="#">PostgreSQL</a> 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 ( <a href="#">Debian</a> , <a href="#">RedHat</a> , <a href="#">Suse</a> , <a href="#">Ubuntu</a> )	12 years	2014	Excellent
Microsoft Windows (2008/7/Vista/2003/XP/NT/98/95)	12 years	2011	Very Good
UNIX ( <a href="#">Solaris</a> , <a href="#">AIX</a> , <a href="#">HP-UX</a> )	5 years	2011	Very Good

### Database Servers

	Time Used	Last Used	Proficiency
<a href="#">MySQL</a>	3 years	2014	Fair
<a href="#">PostgreSQL</a>	5 years	2011	Fair

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	Time Used	Last Used	Proficiency
<a href="#">Microsoft SQL Server</a>	3 years	2008	Fair

## Applications

	Time Used	Last Used	Proficiency
<a href="#">Ipswitch What's Up</a>	2 years	2008	Good
<a href="#">Nagios</a>	3 years	2012	Good
<a href="#">OpenStack</a>	<1 year	2012	Fair
<a href="#">VirtualBox</a>	3 years	2014	Good
<a href="#">VMware</a>	6 years	2011	Fair
<a href="#">Zenoss</a>	<1 year	2011	Fair

## Networking and Security

	Time Used	Last Used	Proficiency
<a href="#">Checkpoint VPN</a>	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
<a href="#">Bash</a>	6 years	2014	Good
C/C++	12 years	2009	Good
<a href="#">Java</a>	1 year	2014	Fair
Javascript	2 years	2014	Good
<a href="#">Perl</a>	6 years	2012	Fair
<a href="#">PHP</a>	2 years	2012	Fair
<a href="#">Python</a>	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	<a href="#">Python</a> , <a href="#">jQuery</a> , <a href="#">jQueryUI</a>
Platform	Server: <a href="#">TurboGears</a> , 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	<a href="#">FreeBSD</a> , <a href="#">Python</a> , <a href="#">Apache</a> , <a href="#">PostgreSQL</a> , <a href="#">TurboGears</a>
Platform	<a href="#">FreeBSD</a> , 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.

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## **Paster to Apache/mod\_wsgi Conversion**

Period	2013
Company	OrcaTec, LLC
Tools	<a href="#">Python</a> , <a href="#">Apache</a> , <a href="#">mod_wsgi</a> , <a href="#">Paster</a>
Platform	<a href="#">Ubuntu</a> 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	<a href="#">AutoIt3</a> , <a href="#">CentOS</a> Linux, <a href="#">Python</a>
Platform	Server: <a href="#">CentOS</a> Linux, Client: <a href="#">Windows</a>

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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