|  |
| --- |
| Michael J. Pedersen |
| 42 Henry St |
| Oxford, NJ 07863 |
| [m.pedersen@icelus.org](mailto:m.pedersen@icelus.org) |
| (908) 718-1337 |

# 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](http://windows.microsoft.com/en-US/windows/home), 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.

## OrcaTec, LLC - Developer

Atlanta, GA (Telecommute) - 2012-2014

* Developed advanced search tool using [Python](http://www.python.org/), [TurboGears](http://www.turbogears.org/), and [jQuery](http://www.jquery.com/).
* Created new document production framework from scratch.
* Spearheaded conversion from [YUI 2](http://yui.github.io/yui2/) to [jQuery](http://www.jquery.com/) and [jQueryUI](http://www.jqueryui.com/).
* Reduced multi-hour [SQLAlchemy](http://www.sqlalchemy.org/) bulk database jobs to minutes.
* Found major security hole (remote code execution) and closed it.

## Choopa.com - Developer

Sayreville, NJ - 2012

* Developed library to manage [OpenStack](http://www.openstack.org/) nodes, and gather billing information.
* Built [Nagios](http://www.nagios.org/) configuration file generator for in-house web interface for [Nagios](http://www.nagios.org/).

## 6th Avenue Electronics - Systems Administrator, DevOps Engineer

Springfield, NJ - 2005-2008, 2011

* Successfully lead migration from [SAP](http://www.sap.com/) to [Tyler](http://www.tylernet.com/) Point of Sale system.
* Developed [Python](http://www.python.org/) validation scripts for data going from [SAP](http://www.sap.com/) into [Tyler](http://www.tylernet.com/).
* Automated configuration options within [Tyler](http://www.tylernet.com/) that could not be done via import.
* Developed [Python](http://www.python.org/) program to copy sales data from [Tyler](http://www.tylernet.com/) POS to [PostgreSQL](http://www.postgresql.org/).

## Datapipe, Inc. - UNIX Developer

Jersey City, NJ - 2008-2011

* Created reporting system called StorageWeb (using [TurboGears](http://www.turbogears.org/)), enabling new revenue stream.
* Developed [Python](http://www.python.org/) app named unixops, allows server access via one time [SSH](http://www.openssh.org/) keys.

## Diversified Systems - Systems Adminisrator / Developer

Hackettstown, NJ - 2002-2005

* Developed GUI to [new software system](http://www.ibsoft-us.com/sbn-complete/) using [PHP](http://www.php.net/), [Apache](http://httpd.apache.org/), and [Mozilla](http://www.mozilla.org/).
* Automated sending faxes to techs, saving five hours/day (in a 10 person office).

# Specific Skills

## Software Configuration Management Tools

|  | Time Used | Last Used | Proficiency |
| --- | --- | --- | --- |
| [Git](http://www.git-scm.com/) | 2 years | 2014 | Fair |
| [Mercurial](http://mercurial.selenic.com/) | 4 years | 2014 | Good |
| [Subversion](https://subversion.apache.org/) | 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](http://www.postgresql.org/) Database Administration | 1 year | 2011 | Fair |
| Relational Schema Design | 5 years | 2014 | Very Good |
| Structured Query Language (SQL) | 12 years | 2014 | Very Good |

## Programming and Scripting Languages

|  | Time Used | Last Used | Proficiency |
| --- | --- | --- | --- |
| [Bash](http://www.gnu.org/software/bash/manual/bashref.html) | 6 years | 2014 | Good |
| C/C++ | 12 years | 2009 | Good |
| [Java](http://www.java.com/) | 1 year | 2014 | Fair |
| Javascript | 2 years | 2014 | Good |
| [Perl](https://www.perl.org/) | 6 years | 2012 | Fair |
| [PHP](http://www.php.net/) | 2 years | 2012 | Fair |
| [Python](http://www.python.org/) | 6 years | 2014 | Excellent |

## Education

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

# Project History

## Advanced Search Tool

|  |  |
| --- | --- |
| **Period** | 2014 |
| **Company** | OrcaTec, LLC |
| **Tools** | [Python](http://www.python.org/), [jQuery](http://www.jquery.com/), [jQueryUI](http://www.jqueryui.com/) |
| **Platform** | Server: [TurboGears](http://www.turbogears.org/), 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](https://www.freebsd.org/), [Python](http://www.python.org/), [Apache](http://httpd.apache.org/), [PostgreSQL](http://www.postgresql.org/), [TurboGears](http://www.turbogears.org/) |
| **Platform** | [FreeBSD](https://www.freebsd.org/), Web Browser |

Datapipe manages thousands of servers. Many of these servers are connected to various shared storage systems, including [3Par](http://www.3par.com/), [Isilon](http://www.isilon.com/), 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](http://www.python.org/), [FreeBSD](https://www.freebsd.org/), [Apache](http://httpd.apache.org/), and [modwsgi](https://code.google.com/p/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.