

# Michael J. Pedersen

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## Profile

Systems Developer / Administrator with 15 years experience doing administration of Windows, Linux, and UNIX (Solaris, AIX), with a strong focus on writing programs to make processes easier and more efficient for the entire work force.

## Relevant Work History

**6th Avenue Electronics**, Springfield, NJ - Systems Developer / Administrator 2005-2008, 2011

In 2007, 6th Avenue began switching from their current POS system (named Tyler) to SAP. At the end of 2010, SAP was declared unworkable, and I was asked to come back to help them switch back to Tyler.

- Developed numerous data validation scripts to validate and scrub data coming from SAP for import into Tyler system.
- Created automation scripts to easily reconfigure hundreds of terminal definitions within Tyler that could not be done via simple data import.
- Wrote automated installer for the Tyler client program to incorporate the program plus the mandatory pieces that we needed.
- Developed program to copy all sales data from Tyler POS system (which uses only ISAM files) to PostgreSQL database.

**Datapipe, Inc.**, Jersey City, NJ - UNIX Developer 2008-2011

- Updated and maintained the existing backup monitoring tool which reported backup failures to our main ticketing system.
- Developed a system called unixops to allow Datapipe technicians to use one time ssh keys for accessing client machines as needed.
- Created new backup monitoring and reporting system called StorageWeb, enabling a new revenue stream for Datapipe.

**Diversified Systems**, Hackettstown, NJ - Systems Developer / Administrator 2002-2005

- Worked with upper management to completely redesign entire business processes and systems company-wide (accounting, customer service, builder coordination, sales and warehouse management).
- Developed customized interface to new software system using PHP, Apache, and Mozilla. Reverse engineered new system as needed.
- Automated sending faxes to field installers, saving four man hours per day.

**Ciber, Inc.**, Greenwood Village, CO - Member of Technical Staff 1999-2002

- Ran, and later automated, nightly code compilations for patient records program. This effort saved approximately 1000 developer hours per week.
- Instructed junior developers in the inner workings of C++.

**Self-Employed**, New Jersey - IT Generalist 1995-Current

- Actively working (as lead maintainer) on TurboGears. This involves migrating our infrastructure, new development, documentation maintenance, bug fixing, and mailing list management.
- Working on new system (named "Icelus Construction Assistant") to provide complete company management for construction companies, with features including scheduling, service, accounting, and warehouse management. This is being written using TurboGears.

## Skills and Experience

### *Software Design and Configuration Management Tools*

	Time Used	Last Used	Proficiency
Git	1 year	2011	Fair
Mercurial	2 years	2011	Good
Subversion (SVN)	2 years	2008	Good

### *Markup Languages*

	Time Used	Last Used	Proficiency
CSS	2 years	2011	Fair
HTML	12 years	2011	Very Good
XML	2 years	2011	Fair

### *Operating Systems Used*

	Time Used	Last Used	Proficiency
Linux (Debian, RedHat, SuSE)	13 years	2011	Excellent
UNIX (Solaris, AIX, HP-UX)	5 years	2009	Very Good
Windows (7, Vista, 2003, XP, NT, 98, 95)	12 years	2011	Very Good

### *Programming Skills*

	Time Used	Last Used	Proficiency
Object-Oriented Design	8 years	2011	Good
Object-Oriented Programming	8 years	2011	Very Good
Refactoring	4 years	2011	Very Good

### *Programming Languages*

	Time Used	Last Used	Proficiency
C/C++	12 years	2005	Very Good
Java	1 year	2006	Fair
JavaScript	2 years	2011	Fair
Perl	6 years	2010	Very Good
PHP	1 year	2010	Good
Python	3 years	2011	Very Good

### *Database Skills*

	Time Used	Last Used	Proficiency
PostgreSQL Database Administration	1 year	2011	Good
Relational Schema Design	3 years	2010	Good
Structured Query Language (SQL)	10 years	2011	Very Good

## Education

East Stroudsburg University, East Stroudsburg, PA  
BS in Computer Science

Graduated 2000

# Project Experience

## *SAP to Tyler Conversion*

<b>Period</b>	2011
<b>Company</b>	6th Avenue Electronics
<b>Tools</b>	AutoIt3, CentOS Linux, Python
<b>Platform</b>	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. They would do a new installation, though, so that mistakes made with the old system could be removed, and the system could be more easily maintained. I was tapped to manage many of the technical aspects of the migration, while my immediate managers would handle 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.

## *StorageWeb*

<b>Period</b>	2010
<b>Company</b>	Datapipe
<b>Tools</b>	FreeBSD, Python, Apache, PostgreSQL
<b>Platform</b>	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.