

I've been writing software professionally since 1990. This has given me a broad skill set. My latest favorite language is Python, but I always use other skills when appropriate. If your only tool is a hammer, everything looks like a nail.

TECHNICAL SKILLS

Languages: Python, Perl, XSLT, C++, Objective-C, Liquid
Test Frameworks: Pytest, Test::More, Googletest
Continuous Integration: Bamboo, TeamCity, GitLab, Bitbucket
DevOps/AWS: Boto3, Lambda, EC2, Elastic IP, S3, Terraform
Virtualization: Docker, Vagrant, Virtualbox, XenServer

WORK EXPERIENCE

Jekyll Developer

Personal - Adapt Github's Jekyll blogging platform to deploy on private web servers
Underhill, VT

July 2022 to date

`jekyll` `liquid` `git` `bash` `markdown` `yaml`

- Detect and mark rendered drafts with liquid templating
- Using liquid, create a page for tags listing the posts where it is used
- Maintain a page that groups posts by category
- Add a page collection customized for displaying code
- Deploy with git
 - Created a git pre-push hook to validate files being pushed
 - Check if a rendered file is a draft and optionally abort push if so
 - Ensure that all tag pages exist and optionally create them
 - Wrote a git pre-receive hook to deploy Jekyll's static site files
 - Uses git read/write tree to merge updates with the remote repo's index file
 - Updates files in the remote work tree
- An example: <https://moments.putnamhill.net>

Engineer 2

Nordstrom - Credit data processing division
Denver, CO

September 2021 – February 2022

`python` `aws` `terraform` `gitlab` `ci-cd` `ebcdic`

- Terraform
 - Worked on a system that sets up and tears down a Kubernetes cluster to isolate credit data operations to comply with SOC2 audits.
 - Contributed to a system to allow developers to work in isolated workspaces
- AWS
 - Monkeypatching lambda functions to test with Pytest
- CI/CD with Gitlab
 - Added pytest step to Gitlab pipelines
- Decoded EBCDIC data received from main-frame computers using python

Software Engineer

Paragon ID
Essex Junction, VT

November 2019 – March 2021

`python` `perl` `mysql` `ssh` `rfid`

- Developed MySQL/Python software to support Matica RFID production machines
- Ported perl post processing software to Python with tests written with pytest
- Coordinate with France branch to integrate ASK RFID reader
- Tuned client production report generation Perl script to reduce runtime from 2 hours to 5 seconds
- Wrote a perl test suite with Test::More module
- Wrote modules in Perl and Python to validate incoming and outgoing data fields
- Development cycle improvements
 - Introduced test driven development for Perl and Python projects
 - Source control with Git and Bitbucket

Sr. Level Software Engineer, Design to Tapeout Automation

Global Foundries
Essex Junction, VT

March 2017 – June 2019

python perl c++ bash ksh aix lsf mysql markdown

- Instrumental in porting legacy semiconductor design validation ksh scripts from IBM AIX systems to Global Foundries Linux servers
 - Refactoring all ksh validation scripts to use LSF distributed high performance computing in place of LoadLeveler
 - Decoupled ksh scripts from the AIX Andrews File System to be compatible with Global Foundries linux systems
 - Saves the company millions of dollars annually
- Utilized Mentor Graphics Calibre application to access data in semiconductor design files
- Published documentation generated by Doxygen using Bitbucket pipelines
- Introduced markdown as the preferred documentation format which has been adopted by my teams and others at Global Foundries
- Convinced my teams to migrate from RCS and CVS to Git and coached them through the transition
- Designed a system to audit changes in configuration and health of compute clusters in USA, Germany and Singapore
- Porting cluster job management software from Perl to Python
 - Designed and implemented a MySQL interface for communicating with the python LSF queue manager application
 - Developed a declarative python configuration system
- Wrote a Python runtime dependency test system so that long running processes can fail fast
- Wrote a C++ authentication helper app supported by Googletest framework

Network Engineer

ClearBearing, Inc.
Essex Junction, VT

May 2016 – March 2017

monitoring linux sys-admin

- Monitored remote sensors across New England using a distributed network of nagios servers
- Linux system management
- Public and Private Cloud Server administration
- Web, database, and load balancing cluster maintenance

Senior Cloud Administrator

OpenTempo, Inc.
Williston, VT

April 2015 – February 2016

aws rds ec2 elastic-ip ssh

- Supported java infrastructure for company's flagship product
- Developed a cloud infrastructure audit system; instrumental in achieving SOC 1 compliance
 - Monitored production and pre-production systems for configuration and security related changes
 - Facilitated a weekly system health and security audit
- Responsible for a daily monitoring, report analysis, log analysis and issue escalation
 - Scripted tools to automate server data collection
 - Created a tool to generate a network topology map, by automatically discovering servers in the AWS cloud
- Maintained and Operated a Chef/Ruby/Opworks based cloud infrastructure
 - 20-25 Amazon Linux EC2 Instances, backed by 8-10 RDS Postgres database instances deployed with Elastic IP
 - Improved and simplified system admin team documentation, security and automation
 - ssh connection credentials
 - server addresses
 - permission related tool sharing

XML Developer

Personal Project
Underhill, VT

September 2014 – April 2015

xml xslt xsltproc pandoc wkhtmltopdf git

- Developed an xslt driven resume build system
- Supported output formats
 - pdf
 - html
 - ms word
- Resume files deployed with git pre-receive hook
- Tests written in bash with TAP formatted output

Software Developer

Laureate Learning Systems, Inc.
Winooski, VT

May 1990 – September 2014

xslt xml bash c git assembly apple-soft-basic mm-director

- Wrote speech-language development software in many programming languages for multiple platforms
- Coordinated with developers and artists to organize the delivery of multimedia assets
- Designed and implemented an API for communication between Flash assets and Adobe Director for Laureate software
- Apple Developer Program Team Agent; managing certificates, app ids, devices, provisioning profiles
- Wrote DLLs in C to provision custom windows language development workstations
- Automation with XML XSLT transformations
 - Product installers and CD-ROM masters
 - Email newsletter
 - Website update
 - Site map
 - RSS feed

Ground Operations Agent

PEOPLExpress Airlines
Dulles, VA & Newark, NJ

1985 – 1986

airline-ops

- Flight support
 - Ordered Jet A fuel for outbound flights
 - Provided pilots with flight plans
- Passenger support
 - Managed oversold flights
 - Checked in passengers
 - Boarded flights
 - Helped passengers with tight connecting flights

MILITARY EXPERIENCE

3rd Infantry Drummer

U.S. Army Old Guard Fife & Drum Corps, Presidential Escort
Ft. Myer, VA

1982 – 1985

rudimental-drumming ceremonies parades

- Musical duties
 - Performed for arrival ceremonies at the White House
 - Traveled around the country performing for various parades and other events
 - Received an Army Commendation Medal for collaborating with a colleague writing drum solos
- Other duties
 - Participated in the ceremony for the internment of the Vietnam War Unknown Soldier in Arlington National Cemetery
 - Predawn "flags-in" tradition each Memorial Day in Arlington National Cemetery with the 3rd Infantry battalion
- Security clearance: secret

EDUCATION

University of Vermont
Burlington, VT

1987 – 1990

- Major: Computer Science
- Minor: German

George Mason University
Fairfax, VA

1985 – 1986

- Major: Computer Science

Northern Virginia Community College
Springfield, VA

1983 – 1985

- Night classes while serving in the U.S. Army

Mount Mansfield Union High School
Jericho, VT

1978 – 1982

- Graduated with emphasis on computer science