

Tim Freund

263 New Holland Ave, Lancaster PA 17602 | 913-207-0983 | tim@freunds.net | <https://freunds.net>

I am a polyglot software developer that can help you build software, deploy it to cloud environments, and train users and engineers on our systems. I've spent my career working under strict security, performance, and uptime requirements.

Work History

Site Reliability Engineering Manager at WebstaurantStore, November 2017 to Present

- Leading a team of 7 engineers that manage servers via Ansible and develop software with Go and Python for WebstaurantStore and Clark Associates. We practice code review, and daily incremental production deployments.
- We moved all public web services behind Cloudflare for CDN and DDOS protectionservices (50+ domains, 17TB/mo).
- We migrated to Prometheus, Prometheus Blackbox exporter, and Alertmanager.
- We worked in conjunction with other infrastructure teams to do live active datacenter fail over in minutes.

Cloud Automation Engineer at Guardian Insurance, August 2017 to October 2017

- Automating machine image management across multiple AWS accounts and regions with Packer, Python, and Jenkins.
- Reducing the time between initial launch and workload ready with a AMI pipeline to layer assets on base images.

Cloud Engineering Lead at NIC (<https://legov.com>), September 2015 to June 2017

- Deployed a private cloud platform based on Mirantis's OpenStack distribution.
- Managed user onboarding including training, support, and project and quota allocation.
- Managed the organization's AWS public cloud footprint.
- Built on-demand lab environments in AWS and OpenStack using cloud-init, Ansible, HEAT, and Python boto.
- Developed and executed multiple training events for software developers and operations engineers including:
 - A 3 day Cloud Enabled Application workshop to help navigate the transition from legacy to cloud
 - A 1 day CI/CD with Jenkins workshop including cloud based lab activities
 - A half day PaaS platform workshop focused on Docker and OpenShift

SRE Manager at NIC, June 2014 to May 2015

- Managed the deployment and monitoring automation for 4 financial applications and supporting services.
- Fostered the implementation of configuration management and continuous delivery tools (Puppet, Jenkins, etc)
- Built reliable and well documented deployment solutions to eliminate bus factor concerns.
- Researched private cloud options and recommended an implementation based on OpenStack
- Taught the OpenStack Upstream Training at the 2015 Vancouver OpenStack Summit, and mentored students afterward.

Site Reliability Engineer at NIC, May 2012 to June 2014

- Migrated 40 instances of 2 apps on 320 legacy hosts to VMs using Puppet and Python with zero downtime.
- Built an elastic load testing system on AWS EC2 with JMeter including F5 load balancer integration.
- Developed training and taught teams about our payment processing stack.

DevOps Team Lead at NIC, September 2010 to May 2012

- Led a team of 6 with a mandate to automate deployments, rethink monitoring, and support development services.
- Built a zero downtime deployment system for Java web applications running on Unix platforms with Python, Paramiko, and bash. Deployment and testing on 120 hosts dropped from 8+ manual hours to 45 automated minutes.
- Built a multi-database tool with SQLAlchemy that allowed users to produce financial reports and troubleshoot errors across all instances of our application in minutes rather than manually compiling results in hours.
- Introduced weekly 1 on 1 meetings with direct reports to improve communications, and employee development.

Development Team Lead at NIC, May 2009 to September 2010

- Managed payment processing software development and lifecycle support on a team of 7 people.
- Led corporate's side of an analysis and implementation of a payment processing solution migration for TexasOnline.
- Managed the operations and maintenance of 29 instances of the Payment Engine application and its integration with payment processors, handling over 8,180,000 transactions and \$2,372,551,488.35 in payments for the 2009 calendar year.
- Wrote Java SFTP and FTP transport utilities with the JSCH library to facilitate timely transfer of bank deposit files.

Senior Software Developer at NIC, June 2007 to May 2009

- Wrote Java middleware and core transaction logic for payment processing for the Payment Engine project.
- Designed and implemented deployment and monitoring strategies for the Tomcat based application.
- Performed primary on call support duties.
- Wrote a SFTP server to reduce daily failures and capture history for batch file processing with Python and Paramiko.
- Rebuilt deployment tools and procedures to achieve zero downtime deployments for TPEv1, previously 2+ hours.
- Installed the corporate Subversion server running on Solaris and built a self service UI for new repositories with Python.

Senior Programmer Analyst at Honeywell FM&T, April 2005 to May 2007

- Led a small team of programmers in a rewrite of the network management system to be network driven rather than database driven. Tools included Java, Spring, Hibernate, and Python.
- Produced a CRUD application with Ruby on Rails and PostgreSQL to manage the software portfolio of the facility.
- Worked with a remote team to upgrade an application that facilitates secure material transportation scheduling. The work was done with Java, Spring, Hibernate and Tapestry, and data migration scripts were written in Python.
- Produced a WebLogic authentication provider to integrate a COTS application with the in house SSO.
- Rapid 1 week development on a firewall access application using Java, Spring, Hibernate, Tapestry and PostgreSQL.
- Wrote a change management web application that integrated with the instant messaging system in the plant. Change actions could be monitored and approved through a web browser or an IM client. The application modeled practices in the ITIL change management process, and was written with Java, Spring, Hibernate, Tapestry, and PostgreSQL.
- Produced a database dashboard to manage development server resources with Python, TurboGears and Oracle.
- Participated on a penetration testing team that engaged internal and external networks. Wrote and modified tools to assist system surveillance and exploitation with a number of tools including Python, Ruby, C, Java, and Metasploit.
- Started a lunch and learn series to foster growth and cross department communication.

IT System Engineer at Honeywell FM&T, February 2000 to April 2005

- Built a network management application with Java Servlets/JSP, and Oracle that provisioned IP addresses, host names and network switch security settings. Integration with the VitalQIP DNS and DHCP server was done with Python.
- Integrated a COTS electronic learning management system with in house SSO and PeopleSoft HR. The SSO integration was done with Java Servlet Filters, and the HR integration used EJB, Oracle, and LDAP services.
- Wrote a phone inventory server with Zope. Programmed bar code reading Palm Pilots with C for inventory collection.
- Designed an Oracle Portal user provisioning tool with Java via model driven development.
- Refactored away half the code and all the connection leaks in the Nuclear Grade Steel Java Servlet/JDBC app.
- Developed a Web Single Sign On system with Java, Apache Axis, LDAP, and JDBC. Also developed Web Single Sign On client libraries for Java, PHP, Python, and ASP and assisted application developers with integration.

Volunteer Experience

Board Member at Lancaster Cemetery, May 2016 to Present

- Developed and deployed the website, mailing lists, and seasonal wreath sales web store.
- Develop and executes social media marketing and outreach via Facebook, Youtube, and Eventbrite.
- Grounds and monument care and maintenance.

Jack of All Trades at Neighbors United, June 2016 to Present

- Planning and implementation of community events, including the largest National Night Out event in Lancaster.
- Execution of neighborhood cleanup initiatives.
- Graphic design and copy writing for neighborhood outreach initiatives.

Instructor for Convert to Code, July 2017 to Present

- Developing Java, Python, and Javascript workshops for students to introduce them to computing concepts.

Education

Rockhurst University, October 1998 to May 2003

Computer Science and Math