

PRINCIPAL SOFTWARE ENGINEER

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"Imagination will often carry us to worlds that never were. But without it we go nowhere."

Summary_

Principal software engineer with many years of creating software on various platforms and languages. Extensive experience specializing in backend/infrastructure, client/server development and computer security. Super nerd who loves vim, Linux and my Raspberry PI. I love to learn new technologies and tools to devising a better problem-solving method for challenging tasks.

Work Experience_

SoftHaven Provo, Utah

SENIOR SOFTWARE ENGINEER

July 2023 - Present

- Architected and implementing the SoftHaven.org licensing website.
- Using podman as a way to containerize services into a pod and transition to Kubernetes.
 - FastAPI to communicate with a native application on distributed devices.
 - PostgreSQL database to store user, product and license data.
 - Stripe payment processing
 - Nginx reverse-proxy
 - Open Telemetry collector
 - Utilizing htmx to produce web application user interface.

Newfold Digital Salt Lake City, Utah

PRINCIPAL SOFTWARE ENGINEER

March 2019 - December 2023

- Designed and implemented multiple React components React user interface for promotional sales on the Bluehost website.
- · Designed and implemented supporting backend microservice that served up promotions as they occurred.
- Implemented python client module so that microservices could extract data from the hosting platform.
- Designed and implemented with other engineers the targeted content service to service content to specific users when they logged into the hosting platform website. This Django service ran in an Openshift container.
- Integrated DataDog logging into a Flask microservice.
- Mentored other engineers and assisted when needed.
- Implemented python client module for hosting platform service.
- Refactored many service from running on Flask to FastAPI micro-service technologies.
- Created and transitioned micro-services from Openshift V3 to V4.
- Resolved issues with infrastructure and customer facing systems as they arise.

Upwell Salt Lake City, Utah

SENIOR SOFTWARE ENGINEER

June 2018 - March 2019

- Analyzed and documented Dynamics 365 CRM and Sage ERP RESTful interface.
- Design and implement infrastructure to support a new Dynamics 365 CRM and RESTful Sage ERP interface.
- · Created a small Python utility to read a report and modify a web based dialer through RESTful api.
- Resolved issues with the Upwell CRM and supporting systems as they arise.

ClearOne Salt Lake City, Utah

SENIOR SOFTWARE ENGINEER

April 2012 - June 2018

- Designed and implemented TCP socket communications adapter allowing management console software to communicate to multiple types of devices with varying communications protocols.
- Designed and implemented macro programming language for audio processing hardware.
- · Created guided editor for macro programming language.
- Modified device embedded web pages to use HTML 5 and JavaScript to remove the use of flash/action script movies.
- Designed and coded a device emulator for the software console to use for testing.
- Implemented automated build process for products.
- Developed and maintained an AWS SaaS application for digital signage.
- Built custom derivative of CentOS for use in digital signage server.
- Analyzed and corrected defects of all products that I was involved with.

Kickback Rewards Twin Falls, Idaho

SOFTWARE DEVELOPMENT/QA MANAGER AND SOFTWARE ENGINEER

October 2010 - July 2011

- · Coordinated the flow of software features through Development, CRM, QA and Support departments.
- Created new processes to enable all teams to work together more efficiently.
- Designed and implemented new functionality for the server side loyalty engine.
- Created testing tools in order to automate testing functions.
- · Supported third party point of sales integrators interfacing into the Kickback Reward Systems infrastructure.
- Bulk loaded new customers implementing Kickback Reward Systems loyalty at their site.
- · Configured hardware and software at the customer site to interface with the Kickback Reward Systems.
- Analyzed and corrected defects in the KickBack Rewards Systems loyalty software.

Prince, Perelson and Associates

Cottonwood Heights, Utah

May 2010 - October 2010

CONTRACT SOFTWARE ENGINEER AT CONTROL4

Created a windows C# form application to configure Windows Media Center applications using XML configuration files.

- Queried remote devices to allow user configuration changes via a user interface.
- Created a Wix-based install combining several applications.
- Refactored common pieces of code into a shared library used by all of the applications.

Harman Pro Group Sandy, Utah

SENIOR SOFTWARE ENGINEER August 2006 - April 2010

- · Worked with System Architect (a HiQNet protocol based device management system) and the engineers of Crown, dbx, JBL, AKG, and BSS to provide functional and user interfaces to configure brand devices.
- Extended the event log database system.
- Created an advanced parameter search engine and user interface.
- Developed a scheduling API and user interface.
- Converted the C# form based application to WPF.
- US Patent us 8,938,675: System for automated generation of audio/video control interfaces. Issued Jan 20, 2015

LANDesk Software South Jordan Utah

SOFTWARE ENGINEER March 2003 - August 2006

- Worked with a team of developers to create Linux/Unix version of LANDesk Server Manager, a browser based system management product for
- Designed and implemented shared libraries and executables to interact with monitored hardware using the cross platform C++ framework.
- Implemented IPMI Serial Over LAN functionality in C++.
- Designed and wrote the LANDesk Server Manager install in Python with a GTK user interface.
- Ported C/C++ security components to HPUX and created the packaging for those components.
- Implemented hardware detection and Server Manager monitoring components for Mac OS X using a combination of C++ and Objective C.

Tek Systems Murray, Utah

November 2003 - March 2003 SOFTWARE ENGINEER

- Part of a development team creating Linux/Unix version of LANDesk Server Manager, a browser based system management product.
- Developed the LANDesk Server Manager install in python with a GTK GUI.
- Designed and implemented utilities in C++ to interact with monitored hardware and encode/decode obfuscated data.

Novell, Inc. Provo Utah

SOFTWARE ENGINEER, LEVEL II November 2001 - October 2003

- Ported NICI (Novell International Cryptographic Infrastructure) and NMAS (Novell Modular Authentication System) to Linux, Solaris and AIX. • Took part in construction of a build management system which has been used throughout Novell to port products to Linux and Unix systems.
- Developed product solutions on multiple platforms; Successfully handled product versioning and packaging according to platform; Performed
- calculation of data authentication code for NICI.
- Designed, installed, configured and administrated a Unix lab for product development and testing.
- · Designed, implemented, tested and shipped an NMAS method that authenticated users to eDirectory using Kerberos authentication to any Kerberos version V KDC.
- · Enhanced and extended NICI and NMAS products.

Provo, Utah

SENIOR ASSOCAITE DEVELOPMENT PROGRAMMER

April 1994 - November 2001

- · As team lead of School Vista II team, created development process used to develop and maintain IBM School Vista II.
- Designed and implemented activity launching of course ware products for IBM School Vista II in C++.
- Provided level three customer support for IBM products.
- Installed and administered lab equipment used in development and testing of products.
- · Developer for division defect tracking system. Administered the DB2 server defect database and enhanced the associated defect tracking application. In this capacity I worked with our IT group maintaining all hardware and software for the defect tracking system.
- Led a team of developers in the creation of a reading tutor that used voice recognition to prompt users written in C++.
- · As team leader of a group of engineers, coordinated and implemented error correction of user reported problems.
- Converted a family of products from network based to standalone.
- · Worked with a development team to design and implement IBM's next educational management system.



Program Committees _____

Education _____

Utah Valley State College

Orem, UT

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Graduated 2002

Brigham Young University

Provo, UT

STUDIES IN ELECTRICAL ENGINEERING

September 1987 - January 1989

Extracurricular Activity _____