

CAREER PROFILE

- Electrical Engineer graduate with honors distinction.
- Worked as independent contractor twice during college.
- Experience working as software engineer for two years during college.
- Learned Android, Python, Git and Linux command line tools from on-line tutorials/videos.

EXPERIENCES

Software Engineer 1

System Team at Vaddio

05.2017 - PRESENT

- Working with FPGA and python developers to create an integrated embedded system that routes audio and video signals in professionally built AV systems.
- I help to build a custom Linux distribution from the '/' up with the Yocto Project.
- Our team uses many other tools during development such as Jenkins, Jira, Git, Bitbake, and Puppet.

Software Engineer

Dojo Five

11.2018 - PRESENT

- Develop embedded software for Particle, Nordic, and STM32 microcontrollers
- Utilized custom hardware with the Particle platform for a custom door access solution
- Developed with NRF52 SDK to create devices in a complex robotic system with BLE services

Student Intern

Hardware Design at Daktronics

05.2016 - 05.2017

- Developed C++ code for communication with I2C sensors from a Linux system.
- Developed a C++ library that simplifies usage of librrd, a C library for creating, updating, and using RRDs (Round Robin Databases).
- Used Test Driven Development to implement library, used CxxTest Framework.

Student Technology Fellow

Classroom Technology Services at SDSU

08.2013 - 05.2016

Research Assistant

EECS Department at SDSU

03.2013 - 05.2016

Software Developer Resident

Subcontractor for Earth Resources Observation Systems

06.2015 - 12.2015

Sputtering System Lab Technician

NASCENTechnology

09.2014 - 02.2015

PROJECTS

Hardware Integrated Prototyping Environment at SDSU Engineering Expo - Nathan Genetzky, Jordan Ulmer, Tanner Johnson (SDSU, 2017)

Design and Verification of a SPI to JTAG Interface Adapter - Nathan Genetzky, Jordan Ulmer (SDSU, 2017)

Interactive User Interface with PIC18 Microcontroller - Nathan Genetzky, Drake Jenio (SDSU, 2017)

Particle Projects - Firmware for micro controllers sold by particle.io for use with wifi or cellular cloud devices.

SKILLS & PROFICIENCY

Yocto (Build System, Embedded Distro, BSP Support)

Developer Tools (Docker, Jenkins, Git)

Terminal Workflow (Vim, GNU tools, shell scripting)

Linux Kernel (Drivers, Config, BSP)

Python Middleware (DBus, REST, GObject, threading)

FPGA Development (SW Interface, Reusable Verilog, Automated Builds)



Nathan Genetzky

Software and Hardware

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EDUCATION

BS Electrical Engineering

South Dakota State University
2012 - 2017

Minor Software Engineering

South Dakota State University
2012 - 2017

LANGUAGES

C++ (~5 years)

Bash (~5 years)

Python (~3 years)

C (~3 year)

Dockerfile (~2 year)

Verilog (~2 years)

Java for Android (~1 year)

Yaml for Ansible (~1 year)

INTERESTS

ice and rock climbing

snowboarding and skiing

cooking

jetskiing and water skiing

camping

hobby-electronics, home automation, RPI