Brendan Nagle

San Francisco, CA 94103 • 781-439-0446 • bf.nagle@gmail.com
https://www.linkedin.com/in/brendannagle14/ • https://github.com/bfnagle

Summary

A software engineer in Silicon Valley with experience writing full stack Linux application code. Has three years' experience as an engineer, with one year specializing as a software engineer using C++ and Python. Starting a part-time online masters program in computer science through Georgia Tech in August 2018.

Skills and Certifications

Programming: C++ (1 year), Python, Linux, Bash (4 years), Git (1 year), Node, Express, React, Javascript, PostgreSQL, Heroku (1 month), C (college + 3 years), Java (college), MATLAB (college), Arduino (7 years)

Certifications: Six Sigma Specialist

Work Experience

Software Engineer II, Raytheon**,** *Sunnyvale, CA* *June 2017 - Present*

- Developed a new MVC application suite in C++. Work involved developing device specific message drivers, scheduling daemons, a GUI suite, and the backend controller software responsible for integrating everything. Owned the entire development stack. Application utilized with Raytheon's protocol analysis software, which is designed to analyze wireless traffic data.
- Built a TCP/IP message driver and some back-end processing components for hardware emulation software. Code was written in C++ and heavily utilized Google Protobuf messaging. Wrote extensive unit tests in C++ and system tests in Python. Project utilized Agile as a development methodology and Git for source control.
- Automated BOM management process for new boards via Python scripting. Reduced time to process a new board by as much as six hours, as well as eliminated most sources of human error.

Hardware Engineering Lead, Oracle**,** *Santa Clara, CA* *July 2015-June 2017*

- Served as the technical lead on the development of AC-DC power supply units for Oracle servers, managed vendors who were responsible for the design, solved supply chain issues, and interfaced with the systems teams on integration.
- Debugged power distribution units to solve TCP/IP networking issues in customer environments. Focused on increasing SSH reliability and network security. Used Wireshark to capture and analyze network traffic.
- Developed automated test programs to validate the circuitry and digital design of both power supplies and servers.

Hardware Engineering Intern, Oracle, *Santa Clara, CA* *Summer 2014*

- Validated the design of the Oracle SPARC M7 servers by collecting and analyzing data with an oscilloscope.
- Wrote bash and Python scripts, processed data in Excel, and programmed FPGAs in Verilog.

Embedded Systems Intern, Johns Hopkins University Applied Physics Laboratory, *Laurel, MD* *Summer 2013*

- Wrote bash scripts and parsed data in Python to aid in the development of national defense projects in the Communications Department of the Asymmetric Operations branch.
- Designed a clandestine tracking device with Arduino, a CDMA cellular device, and a GPS unit.

Personal Projects

Student Loan Payoff Calculator, https://github.com/bfnagle/LoanPayoffCalculator *Jan 2018*

- Built an application in Python that pulls student loan data from my servicer website via Selenium
- Code calculates loan payoff date and interest paid on loans for the base payments and amount saved by paying extra

Home Brewing Temperature Controller and Web Application, https://github.com/bfnagle/MeadOnline *Feb 2018 - Present*

- In order to control the fermentation temperature of a mead home brewing project, programmed a NodeMCU to toggle power to a chest freezer on or off to maintain temperature in an acceptable range.
- Developed a Node.js web app to receive HTTP PUT requests from the microcontroller. The back end used an Express server, while the front end used React. Deployed the app to Heroku. The app allows the user to view historical temperature data for each fermentation run and is built to work with extra sensor data in the future. Site: https://polar-citadel-83608.herokuapp.com/

Biometric Data Logger for Skiers, https://github.com/bfnagle/Ski_Sense_Project *Sept 2014 – Mar 2015*

- Designed the firmware for my group's capstone project, which was a device that would collect and log biometric data on a skier's stance. Data was processed in MATLAB and cross-referenced with video taken on the ski slope.
- Wrote code for Arduino microprocessors to allow multiple devices to communicate wirelessly via the Zigbee protocol, as well as implementing I2C and SPI communications and analog to digital conversion for various sensors.

Education

Dartmouth College, Hanover, NH, graduated Cum Laude, GPA: 3.76/4.0

- Bachelor of Engineering: High Honors in Electrical Engineering *March 2015*