

# Zack Yancey

CV: [zackyancey.com](http://zackyancey.com)

✉ [mail@zackyancey.com](mailto:mail@zackyancey.com)  
🐙 [github.com/zackyancey](https://github.com/zackyancey)  
🌐 [linkedin.com/in/zackyancey](https://linkedin.com/in/zackyancey)

## WORK EXPERIENCE

### Software Engineer II — Digi International, Sandy UT

May 2018 - Present

- Created ports of products to different hardware to provide alternatives to supply-constrained parts. 7 product replacement projects from 2021-2022 allowed the company to maintain inventory during part shortages.
- Led a team of interns developing firmware and driver code for a testing board that allowed us to automate 95% of manual QA tests, reducing the time to prepare a software release by 60%.
- Working on a scrum team, developing firmware in C and maintaining automated tests written in python.
- Developing for a wide range of products of different ages, from new products to ~10 year old products entering end of life.
- Extensive experience debugging embedded software. In particular, I am often called on to resolve or consult on issues related to real-time concurrency and microcontroller peripherals (SPI, UART, ADCs, etc.).
- Providing a primary point of contact to product management for project timeline estimation and technical questions.

### Embedded Systems Intern — LeGrand BCS, Orem UT

January 2017 - April 2018

- Created an automated test suite in Python, reducing time to run tests by 90%.
- Ran UL certification testing and design verification using oscilloscopes, logic analyzers, etc.

### Shop Technician — BYU Electrical Engineering Shop, Provo UT

January - December 2016

- Independently studied and developed knowledge on rapid prototyping software and machinery (PCB mill, 3D Printer, Laser Cutter), which helped me become a core resource for utilizing and maintaining this equipment effectively.
- Helped students with hardware and software designs for personal and school projects.

## EDUCATION

### BS, Computer Engineering — Brigham Young University, Provo UT

Graduated April 2018

- Minors in Mathematics, Computer Science
- GPA: 3.43, Major GPA: 3.53
- Courses in Embedded System Design, Real-Time Operating Systems, Operating System Design, Computer Architecture, FPGAs, and other topics.

### Global Leadership Study Abroad — BYU, Guangzhou China

April - May 2016

- Studied skills of leadership and global agility at Sun Yat-Sen University in China in a multidisciplinary class of American and Chinese students.

## OTHER EXPERIENCE

### AC Dimmer Alarm Clock — Personal Project

2015 - present

- Designed and built an alarm clock with a built in AC dimmer that can use a lamp to simulate a sunrise in the morning.
- Brought up the project through several stages including breadboard prototype, hardware bringup/writing drivers, PCB design, sourcing and assembly, hardware debugging, and application development.
- Created an alternative method of timekeeping to work around a batch of broken crystals, saving me from having to re-purchase and assemble \$200 worth of prototypes.
- Application is written in C++ using a port of the Arduino framework for STM32 microcontrollers, and some custom drivers.

## SKILLS

Programming languages:

- C
- Python
- C++
- Rust
- Zig
- Bash
- Java

Operating Systems:

- Linux
- Windows

Embedded Systems:

- Design
- Programming
- Debugging

Git

Real-time operating systems

PCB design

3D Printing

## LANGUAGES

English (native)

Spanish (conversational)