

# Zach Brogan

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## EXPERIENCE

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### Qualtrics | Software Engineer

Provo, UT | Feb 2019 - Present

- Developed a frontend infrastructure platform to make it easier for teams to develop, build, preview, and ship applications, used by 150+ projects. The service currently receives production traffic averaging 200 requests per second. Built with Go, JavaScript, Postgres, Docker, Nomad, AWS S3, and various CI/CD integrations.
- Owned a webpack-based build tool, similar to create-react-app, with company-specific best practices.
- Created a React + TypeScript component library, used by over 600 projects across the company in order to accelerate developer productivity and meet accessibility requirements: [designsystem.qualtrics.com](https://designsystem.qualtrics.com).
- Established localization best practices and maintained translation tooling used by 700+ projects in 80 languages.

### SpotterRF | Software Engineer

Orem, UT | May 2018 - Feb 2019

- Implemented features and fixes for a Linux-based surveillance radar system using Golang, AngularJS, and Postgres.
- Wrote drivers in Python to integrate security cameras into the radar tracking software with pan-tilt-zoom control.

### Brigham Young University | Research Assistant

Provo, UT | Oct 2016 - Apr 2018

- Designed an "Internet of Things" thermostat, built with Wi-Fi microcontrollers, custom relay circuitry, AWS Lambda functions in Python, DynamoDB, and a JavaScript web app: [wp-archive.zachbrogan.com](http://wp-archive.zachbrogan.com).

### Digi International | Software Engineering Intern

Lindon, UT | May 2017 - Sep 2017

- Contributed to firmware development of Zigbee radios by implementing features in C for calibration, temperature sensing, and ADC integration.
- Verified Zigbee chip quality by writing tests with a Python test framework.

## EDUCATION

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### Brigham Young University | BS in Computer Engineering

Provo, UT | Apr 2018

Computer Science Minor

GPA: 3.93/4.0

## PROJECTS

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### Backtick | [backtick.zachbrogan.com](https://backtick.zachbrogan.com)

2022 - 2023

A Chrome extension that enables writing inline code snippets within Google docs.

### Sleep Sensor Lamp | [github.com/zbrogz/sleep\\_sensor](https://github.com/zbrogz/sleep_sensor)

2018

A bedside lamp that automatically detects sleep using a radar sensor and actigraphy algorithm implemented in Python.

### Bluetooth Keyless Entry | [devpost.com/ZachBrogan](https://devpost.com/ZachBrogan)

2017

A system for unlocking my car using an Arduino 101 and companion iOS app.

## ACHIEVEMENTS

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### BYU IEEE Secretary

Provo, UT | Feb 2017 - Jan 2018

### Volunteer Representative

São Paulo, Brazil | Sep 2013 - Aug 2015

## SKILLS

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Golang • React • JavaScript • TypeScript • Python • HTML • CSS • PostgreSQL • Shell • Git • Webpack  
HTTP • GraphQL • Akamai • AWS • Spinnaker • Jenkins • GitLab CI • Nomad • Docker