

Zach Brogan

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EXPERIENCE

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. Built with Golang, JavaScript, Postgres, Docker, Nomad, AWS S3, and various CI/CD integrations. The service currently receives production traffic averaging 200 requests per second while achieving a 99.99% hit rate from its distributed cache.
- 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.
- 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.

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

Brigham Young University | *BS in Computer Engineering* Provo, UT | Apr 2018

Computer Science Minor

GPA: 3.93/4.0

PROJECTS

Backtick | 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 2018

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

Bluetooth Keyless Entry | devpost.com/ZachBrogan 2017

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

ACHIEVEMENTS

BYU IEEE Secretary Provo, UT | Feb 2017 - Jan 2018

Volunteer Representative São Paulo, Brazil | Sep 2013 - Aug 2015

SKILLS

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