

Education

University of Iowa, Iowa City, IA

- Computer Science and Engineering MS **GPA: 3.87** | Aug 2019 - May 2020
- Computer Science and Engineering BSE, *summa cum laude* **GPA: 4.08** | Aug 2016 - May 2019

Founder & President @ HackIowa

May 2017 - May 2019

- Increased hackathon accessibility and provided students with new skills via student-led workshops
- Brought the University of Iowa from a Major League Hacking Overall Rank of #102 to #7 in one year

Employment

Research Assistant @ Computational Logic Center, Iowa City, IA

Aug 2019 - Present

- Overhauled the existing documentation system using Sphinx to migrate from Markdown to reST
- Developed a Travis CI pipeline for cross-platform nightly builds of the Kind 2 automatic model checker
- Oversaw a critical ZeroMQ version upgrade to remove usages of deprecated APIs, which involved rewriting a custom OCaml binding and modifying C code that interfaced it with libzmq/czmq

Fullstack Developer @ The Signal Center/CompEpi Group, Iowa City, IA

May 2017 - Aug 2019

- Created a RESTful Django API wrapper for Hologram.io, an IoT service for wireless device connectivity
- Developed a Fitbit-integrated Django app called MapTrek which positively impacted health outcomes for a cohort of over 250+ research subjects by incentivizing users to be active through gamification
- Led the migration of MapTrek from v1 to v2, which included an API redesign and complete rewrite of the frontend code from Django templates + jQuery to a React + TypeScript single-page web app
- Managed DevOps tasks like configuring GitLab CI, linters/testing tools, and dev/staging environments

Backend Developer @ Graze Analytics, Iowa City, IA

Aug 2018 - Aug 2019

- Was contracted to be the lead backend developer on a Ruby on Rails project for a local restaurant data aggregation & analysis platform, which had grown from an ECE Senior Design idea into a startup
- Designed and implemented an API that bridged three services (a mobile app for waiters recording orders, a web app for clients giving reviews, and an analytics platform used by business owners)

Computers in Engineering TA @ University of Iowa, Iowa City, IA

Aug 2018 - Jan 2019

- Helped instruct a class of over 140 students in C++ and object-oriented programming principles
- Independently developed a suite of Bash scripts to automate mundane tasks and save time

Computer Science Private Tutor @ University of Iowa, Iowa City, IA

Jan 2017 - May 2019

- Tutored 20+ clients in undergraduate CS courses, primarily focused on Python and C++ instruction

Projects

Glean Fields @ HackISU, Ames, IA

Oct 2018

- Winner of *Best in Food Security* and \$100 in prizes (2 person team)
- React Native app to connect farmers with nonprofits to reduce food waste using John Deere APIs

DiaMetrics @ ArchHacks, Saint Louis, MO

Oct 2017

- Winner of *Best Diabetes Hack* and \$250 (4 person team)
- Angular/Django web app to simplify diabetes care and glean health insights from blood glucose data

The Med Manager @ ArchHacks, Saint Louis, MO

Nov 2016

- Winner of *Best Health Communications Hack* and \$500 (3 person team)
- Alexa skill designed to track medication schedules easily in order to encourage medication compliance

Skills

Languages: Python¹, Ruby, JavaScript/TypeScript, Java², Bash, C++³, C, OCaml, F#, MATLAB

Frameworks/Libraries: Django¹, Rails, React, Angular², Flask, Express³, Loopback, React Native

Technologies/Concepts: Linux¹, AWS (EC2, S3, Lambda), CI/CD (Travis, GitLab CI), JWT, PostgreSQL, RESTful API design, Agile methodologies, TDD/BDD, Docker², Google Cloud Platform, MySQL, Sphinx

¹ Highly proficient ² Competent ³ Some familiarity