NICOLAS MITCHELL

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10704 Sunderland Road, Louisville, KY 40243

**Education**

**Bachelor of Science in Computer Science and Engineering** May 2020

*JB Speed School of Engineering, University of Louisville* Louisville, KY, USA

**GPA:** 3.341/4.0

**Skills**

**Languages:** C, C++, Java, Python, Golang, JavaScript, Bash

**Other technologies:** AWS, Docker, Git, GNU/Linux, SQL and NoSQL databases, ReactJS

**Fields of Expertise:** Backend Programming, serverless architecture, cloud infrastructure, front-end development, networking

**Work Experience**

**Backend Software Developer Intern** June 2019-August 2019

*Red Ventures* Fort Mill, SC

* Developed backend microservices in Golang for an internal data pipeline software
* Developed integration with third party service providers like Segment
* Built web UI components using ReactJS
* Wrote MySQL database migrations to facilitate software functionality

**Visiting Research Assistant** January 2019-May 2019

*University of Southern California Information Sciences Institute* Waltham, MA

* Researched and developed a system component for a DARPA funded project to automatically detect and respond to phishing emails
* Worked with a team to develop new features and fix bugs for a Natural Language Processing library written in Python

**Software Developer Intern** January 2018-April 2018

*El Toro* Louisville, KY

* Wrote automated unit and integration tests for database software in Go
* Wrote software in Go to interact with various databases including MongoDB, Aerospike, and PostgreSQL
* Wrote an outward-facing RESTful API with Golang to handle and process requests using Amazon Web Services
* Used Docker containers to control and automate tests

**Student Tutor** August 2017-Present

*Resources for Academic Achievement (REACH)* Louisville,KY

* + - * Helped students and staff with IT issues
      * Tutored for Computer Information Systems and Computer Engineering classes
      * Helped students solve problems with Microsoft applications, Python, C, C++, C#, and Java

**Applied Experience**

**Embedded Systems:** Used an Arduino to interact with electrical systems such as an LED screen and vehicle ECU, designed and developed a self-orienting solar panel using an ATMega328P Microcontroller, designed and developed a touch-sensor game using a Raspberry Pi.

**IOT/Serverless:** Architected, developed, and deployed an IOT pilot project that ran sensor data through AWS IoT to an Aurora Serverless database cluster using a lambda function.

**Networking/Architecture:** An Aurora Serverless Database Cluster was stored in a private subnet of a VPC. An EC2 API was placed in a public subnet of the same VPC, and served database data to authorized users through a web client hosted in S3. Wrote all code for the database, API, and frontend client.

**Hackathons:** FirstBuild 2017, VandyHacks 2017, DerbyHacks 2018, FirstBuild 2018

**Certifications**

**AWS Certified Solutions Architect – Associate** July 2019- July 2022