JACOB MURRAH

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EDUCATION

Auburn University   *August 2021 – December 2025*
Bachelor's, Software Engineering   *GPA: 3.91*

EXPERIENCE

Adtran   **Huntsville, AL**
Software Engineer Co-op III   *August 2024 - December 2024*

- Led an API endpoint migration by refactoring 6000+ lines of TypeScript in an Angular application, enabling cost optimization through legacy infrastructure elimination.
- Optimized AWS infrastructure by removing unused Lambda functions, reducing total Lambda functions by 32.8% which contributed to cost savings and a more streamlined serverless architecture.
- Pioneered the development of an advanced TFT touchscreen router interface by developing C++ code for an Arduino, providing critical insights that guided strategic decision-making for future product development.
- Designed and implemented a user-centric feature in Angular for one-click WiFi password resets, integrating with a Python backend API, to simplify router management and reduce support calls related to WiFi access issues.
- Spearheaded the implementation of a customer-facing API service using Python, integrating with a DynamoDB database to provide streamlined information transfer and enhanced customer experience across multiple platforms.

Software Engineer Co-op II   *January 2024 - May 2024*

- Accelerated teams in locating Jenkins jobs and their associated EC2 instances by creating a fully tested internal website using Python and JavaScript/HTML/CSS, supporting a smooth transition to a self-managed CI/CD environment.
- Enabled the automatic configuration of GitHub autolinks for every repository within an organization by creating a fully tested GitHub app in Python, allowing users to link to the associated story/issue in commits and PRs.
- Improved developer efficiency and command-line experience by writing fully tested Bash completions for the commands of an internal dependency manager tool.
- Captured and summarized metrics of 3 internal tools, as measured by the creation of Grafana dashboards, by utilizing SQL and writing Python code and tests which facilitated data-driven decision making.

Software Engineer Co-op I   *May 2023 - August 2023*

- Established and verified RADIUS server connectivity by building and configuring a testbed for RADIUS Relay, documenting the provisioning and verification steps, and developing Python tests.
- Improved test stability across GPON cards by refactoring unstable Python tests to ensure they ran and passed on various testbeds, achieving reliable testing performance.
- Ensured accurate VOIP server configuration by writing Python tests, resulting in enhanced GPON product reliability through increased test coverage.
- Improved network documentation by drawing detailed network diagrams for 8 GPON testbeds, mapping connections to switches and ONTs, and labeling the IPs of connected devices.

PROJECTS

LeetCode Repetition Web Extension

- Developed a web extension to schedule repetitions of completed LeetCode problems, featuring an SQL database and a Go REST API deployed to Google Cloud using Docker, which facilitates users in technical interview preparation.

Discord Bouncer

- Deployed a fully tested Python Discord bot to Google Cloud using Docker which utilizes Stripe payments to assign roles, enabling the Discord server owner to customize member access.

SKILLS

Languages: Python, TypeScript, Go, Java, C++, JavaScript, HTML/CSS, SQL, Bash
Technologies & Tools: git, GitHub, AngularJS, Docker, AWS, Google Cloud, Linux, REST APIs, Jenkins, CI/CD