Pradhapan Rajendran

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Education

University of Guelph   **Grad. May 2024**
Bachelor of Computing, Computer Science (Co-op)   Guelph, Ontario
- **Relevant Coursework**: Operating Systems, Parallel Programming, Networks, Algorithms, Data Structures

Skills

Languages   Python, Go, JavaScript, Java, C, C++, HTML/CSS, Ruby, C#, SQL
Technologies React, Node.js, Express, Flask, NestJS, Ruby on Rails, AWS, Docker

Experience

Snowflake   **May 2023 – Aug 2023**
Software Engineer Intern   San Mateo, California
- Built an automation framework that provides cloud-agnostic deployment, configuration capabilities, and front-loaded manual actions to reduce the time of bringing up a new deployment by 95%.
- Developed a flexible diff algorithm for JSON files, with custom equality definitions for specified properties and transformation of values to allow for normalization and comparison of nonstandard data types.
- Propagated approvals of Terraform plans across deployments by comparing and matching pending changes to previously applied ones, reducing weekly manual review time from 3 hours to < 5 minutes.

Amazon Web Services (AWS)   **Jan 2023 – Apr 2023**
Software Development Engineer Intern   Vancouver, British Columbia
- Created an open source templating solution to simplify the authoring, packaging, and deployment of GraphQL APIs through resolver code generation and abstracted permissions management.
- Developed a generic template validation algorithm that compared user templates against AWS resource schemas, eliminating 80% of common user errors from template deployment.
- Refactored our schema handler to generate fully typed Python models, eliminating runtime type errors and reducing feature development time by 20%.

Amazon Web Services (AWS)   **May 2022 - Aug 2022**
Software Development Engineer Intern   Vancouver, British Columbia
- Developed new AWS service to connect resources with automated policy creation from permissions presets.
- Created a drift detection API in Java and Python to identify and restore misconfigured service permissions in complex service architectures to healthy working states in < 1s.
- Designed a monitoring service for connectors with Lambda and Step Functions to check for unmanaged changes in connectors on a user-set interval.

ApplyBoard   **Sep 2021 - Dec 2021**
Software Engineer Intern   Waterloo, Ontario
- Spearheaded production of an internal data import service to convert Excel documents with customer information into user profiles, reducing account creation times by 85%.
- Refactored old React modules in Typescript with modern practices (functional components, hooks), resulting in 50% faster load times and improved readability.
- Constructed API microservices in NestJS and Ruby on Rails applications to transfer multipart form data.

Projects

Clouseau | *Python, Flask, SQLite*
- Created a GitLab contribution tracker in Flask that generated analytics dashboards for commit history, code reviews, and merge requests to identify equal work completion in group assignments.

GPX Utilities | *C, JavaScript, Node.js, Express*
- Created a GPX parsing library in C for developers to search, filter, and calculate optimized travel routes using depth-first search and the Haversine formula.

Extracurricular

Guelph Coding Community   **Jan 2023 - Present**
Speaker   Guelph, Ontario
- Held multiple sessions educating new computer science students on how to develop strong development skills early, and prepare them for applying to internships and entering the workforce.