

Experience

Software Engineering Intern [Amazon Web Services \(IQ\)](#) 05-08/2020

- Rebuilt email notification stack for unread chat messages and payment requests [*TypeScript*]
 - Created an AWS API Gateway/Lambda/SES stack (also refactored an existing AWS CloudWatch/DynamoDB/SNS/SQS system) that reliably send thousands of emails a week
 - Added email unsubscribe URLs (with spam filter bypass headers) to automate opting out
- Devops: Managed CI/CD pipelines, AWS IAM policies/roles, and AWS CloudFormation builds
- Adhered to AppSec, and maintained 94+% unit/integration test coverage on all code reviews

Software | Data Engineering Intern [RS Energy](#) (part of [Enverus](#)) 01-08/2019

- Promoted to lead developer of a *customer-favorite* Excel sheet and web charts generator
- Reduced a 2-hour multi-user CSV validate and upload process to a 2-minute single-user task
 - After discovering many inefficiencies in a data pipeline, I offered to deliver a CSV uploader React/Node.js web app that eliminated 90+% of UX and data-ingest bottlenecks
- Rebuilt a 10-year-old MS Access DBMS concurrently serving 50+ international employees
 - The redesigned system is a web app with a PostgreSQL backend, a Node.js microservice controller, and a React frontend [PM Tool: *Jira* | Build Tools: *Docker/Teamcity*]
- Constructed ETL pipelines between MS Azure Data Lake, KineticaDB (GPU database), and AWS DynamoDB [*Azkaban* | *Hadoop* | *Scala/Spark*]

Assistant Coding Instructor [Discover Coding](#) 09-12/2018

- Taught foundations of computer science in a Montessori learning environment
- Pair-programmed with 20 students (ages 8-12) to encourage rapid mini-project development

Projects

- [RideShare](#) (2020) Android app allowing any driver to give rides to any rider [*Android (Java)*]
- **Autopilot System Software** (09/2019-01/2020) for the [UAARG](#) club [*Paparazzi UAV* | *Python*]
 - Optimized data transfer rates from image recognition to quadcopter's onboard computer
- [TouchTrack](#) (2017-2018) Android app, and desktop script system that gives a smartphone cursor control of the host PC using WebSockets [*Android (Java)* | *Python*]
 - Won the **Students' Union Award For Outstanding Innovation** (2018)
- [Graphing Calculator](#) (2017) Plots n-degree polynomial/sinusoidal charts on an Arduino [*C++*]

Education

[University of Alberta](#) | BSc in Computer Engineering | 3.74/4.00 Class of 05/2021

- Algorithms and data structures [*Python*], computer architecture [*VHDL*], and OOP [*C++* | *Java*]
- Received the Jason Lang Scholarship 4 years consecutively (2016-2020)