

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 the interim lead developer of a client-favorite Excel charts generator [*Node.js*]
- 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 web app eliminating 90+% of UX and data-ingest bottlenecks [*Node.js* | *React*]
- Rebuilt a 10-year-old MS Access DBMS concurrently serving 50+ international employees
 - The redesigned system is a web app hosted on AWS cloud with a PostgreSQL DB, a Koa.js RESTful API middleware, and a React frontend [CI/CD: *Teamcity* | *Docker* | PM: *Jira*]
- Constructed ETL pipelines between MS Azure Data Lake, KineticaDB (GPU-driven), 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

- [OwnMyWay](#) (2020) Lets qualified drivers earn sharing rides [*Android (Java)* | *GCP Firebase*]
- **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 [Outstanding Innovation](#) award from Students' Union (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 [*C++*], deep neural network learning [*Python*], OOP [*Java*], and ICs [*VHDL* | *VLSI*]
- Received the Jason Lang Scholarship 4 years consecutively (2016-2020)