# LUKE DELA CRUZ SOFTWARE | DATA ENGINEER

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# **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
  - o 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
- > 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 PM: Jira Docker
- Constructed ETL pipelines between MS Azure Data Lake, KineticaDB (GPU-driven), and AWS DynamoDB (Azkaban) (Hadoop) (Spark (Scala))

## **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) Lets any qualified driver earn by 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
- > <u>TouchTrack</u> (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 and data structures (Python), computer architecture (VHDL), and OOP (C++) (Java)
- Received the Jason Lang Scholarship 4 years consecutively (2016-2020)