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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
   ○ 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)