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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 and data structures [*Python*], OOP [*C++* | *Java*], and architecture [*VHDL* | *VLSI*]

➢ Received the Jason Lang Scholarship 4 years consecutively (2016-2020)