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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 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)