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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] [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
- 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], computer architecture [VHDL], and OOP [C++] [Java]
- Received the Jason Lang Scholarship 4 years consecutively (2016-2020)

References Available Upon Request — **Open to Relocate or Work Remotely**