

Cole Mackenzie

<https://cmackenzie1.github.io/>

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SKILLS

Technologies: Amazon Web Services; Docker & Kubernetes; Jenkins; MySQL/RDS; Spring Boot; RESTful API's & GraphQL; Apache Hive, Kafka, Spark;

Languages: Python, Kotlin Java, Go

Soft Skills: Self-motivated, clear communicator, team player, open-minded, curious

EXPERIENCE

• Intuit

Mountain View, California, U.S.A

Software Engineer II

January 2020 - Present

- **Data Exploration:** Architected and engineered a service to automatically materialize JSON documents stored in Kafka to a column separated format accessible via Hive. Decreasing the time for data exploration on new topics from several weeks to less than 15 minutes.
- **Stream Processing:** Developed a real-time pipeline using Apache Beam and Kafka to power data exploration.
- **Operations:** Participate in a regular rotation for on-call duties for several services. Conducted investigations and authored RCA's for incidents.
- **Inner Source:** Pushing adoption of leading inner sourcing patterns for internal projects.

Software Engineering Intern

May 2019 - August 2019 (4 months)

- **Continuous Integration and Deployment:** Developed and launched a CI/CD service to validate user's configuration files and provide actionable feedback on any issues before attempting deployment. This service enabled users to self-onboard to our batch processing platform - providing our team with additional bandwidth for development of new features.

Software Engineering Intern

May 2018 - August 2018 (4 months)

- **Contact Center Automation:** Developed a Spring service to provide a version controlled interface for importing, exporting, validating, and visualizing Amazon Connect Call Flows through the Amazon Connect API and Neo4j.

• Intuit Canada

Edmonton, Alberta, Canada

Software Developer Co-op

January 2017 - April 2018 (16 months)

- **Continuous Integration and Deployment:** Simplified and standardized our development and deployment environments across our team's services. Reducing the time for deploying from development to production from several days to less than an hour
- **Cloud Migrations:** Spearheaded the migration of a service from our internal data center to Amazon Web Services while creating and applying best practices for maintaining our cloud infrastructure.
- **Image Capture:** Contributed to the development of a RESTful service to extract, classify, and label semi-structured data captured from W2 Tax forms using OCR, machine learning, and spatial awareness.

• Fraunhofer FOKUS

Berlin, Germany

Software Programming Intern

June 2016 - July 2016 (2 months)

- **Time-series:** Evaluated and presented a comparison of InfluxDB and Elasticsearch for storing time-series data.

EDUCATION

• University of Alberta

Edmonton, Alberta, Canada

Bachelor of Science with Specialization in Computing Science - Science Internship Program

Sep. 2014 - Dec. 2019

PROJECTS

- **Untidy:** RESTful service for shortening URLs. Built using Spring, Kotlin with Cassandra as the storage layer.
- **New Grads 2020:** Created a GitHub repository with over 850 stars to collect and share software engineering roles for recent graduates.

ACHIEVEMENTS

• Simulating Image Capture

US10474890

Patent

Issued November 12, 2019