Dante Mazza

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Skills

Languages: **Java, Python, Kotlin, C, C++, Rust, JavaScript, MATLAB, Scala, SQL, Verilog, VHDL**
Libraries/Frameworks: **Flask, Spring, Spark, Hadoop, Celery, TensorFlow, Keras**
Tools/Infrastructure: **AWS (various), Kubernetes, Docker, Kafka, Linux, Terraform, Git, Bash/zsh**

Work Experience

Splunk *San Francisco, CA*
Software Engineer *July 2023 - Present*

- Optimized AWS Glue/Kinesis Spark Streaming jobs through performance analysis, reducing ingest costs by 70%
- Designed and led cross-functional end-to-end testing framework for ML models (AWS, Spark, Python, GitLab CI/CD), reducing deployment time by 95%
- Upgraded integration test environments to use Stateful Kubernetes services, reducing test flakiness by 90%
- Developing production ready APIs with Java/Spring, Kubernetes, AWS, Prometheus for metrics

Amazon Keyspaces (AWS) *Bellevue, WA*
Software Development Engineer Intern *Aug 2022 - Dec 2022*

- Developed a batch query service with ACID properties at scale using Kotlin and internal AWS services for a managed Cassandra product
- Researched open-source Cassandra implementation and functionality for batch queries and designed for parity
- Resolved customer tickets involving connections to Keyspaces using the Scala client for Cassandra

Splunk *Toronto, Canada*
Software Engineer Intern *Jan 2022 - Apr 2022*

- Prototyped multi-tenant Spark job execution with AWS (EMR, IAM, STS, Step Functions, Lambda), Terraform, Python, Docker, Java, Spring
- Migrated on-premise Spark/Scala apps to cloud environment with I/O connections to S3 data lake and Kinesis
- Automated tenant provisioning in shell with GitLab/internal APIs, saving 6 hours of onboarding per customer

KCM Solutions *Toronto, Canada*
Software Engineer Intern *Jan 2021 - Apr 2021*

- Built Node.js and Python serverless backend services for a chatbot with various APIs (Twilio, MS Graph, Watson)
- Created containerized CentOS enterprise software environments with Docker/Compose for centralized use; established network communication, LDAP authentication, Postgres connections

Wisedocs *Toronto, Canada*
Machine Learning Engineer *May 2020 - Sept 2021*

- Implemented and evaluated various machine learning models, including CNNs (Tensorflow, Keras), NLP (Huggingface Transformers), k-means clustering (sklearn)
- Developed document clustering algorithms that reduced prediction time by 85% and several other ML pipeline features/bug-fixes in Python/pytest

Sept 2020 - Sept 2021

- Determined pipeline evaluation metrics with SQL queries and Pandas, providing ML performance benchmarks
- Developed a training method for pre-serialized datasets via Keras' batch interface; reduced training time by 90%
- Prototyped signature/logo removal algorithms with OpenCV/NumPy

Education

University of Waterloo | Candidate for BASc, Computer Engineering *Sept 2018 - May 2023*

- Deans Honour's List (first year)
- Relevant coursework: Distributed Systems, Compilers, Operating Systems, Networks (C, C++, Java, Rust)