Robert Lewis

SUMMARY

Motivated Data Engineering and Machine Learning intern candidate pursuing an M.S. in Computer Science at Georgia Tech. Proficient in Python, SQL, cloud platforms (AWS, Azure, GCP) and big data frameworks (Spark, Hadoop, Kafka). Demonstrated experience in building scalable pipelines and ML systems through hands-on projects. Eager to leverage technical skills and drive data-centric solutions.

EDUCATION

Georgia Institute of Technology (Georgia Tech)

Remote

M.S. in Computer Science

Expected June 2026

Relevant Coursework: Advanced Database Concepts & Design, System Design for Cloud Computing,
Data Analytics & Security, Computer Networks, Artificial Intelligence, Machine Learning for Trading

University of California, Los Angeles (UCLA)

Los Angeles, CA

B.S. in Statistics and Data Science

Graduated June 2023

Relevant Coursework: Probability Theory, Deep Learning, Neural Networks, Bayesian Statistics,
Computer Vision, Data Warehousing, Data Mining, Data Visualization, Data Structures & Algorithms

TECHNICAL SKILLS

Programming & Scripting: Python, Go, SQL, JavaScript, TypeScript, R, Bash

Machine Learning & Data Science: Pandas, NumPy, TensorFlow, PyTorch, scikit-learn, Matplotlib

Cloud & MLOps: AWS, Azure, GCP, Docker, Kubernetes, Terraform, Airflow, Jenkins, GitLab CI/CD

Data Engineering & Pipelines: Kafka, Hadoop, Spark, Hive, dbt, Apache Beam

Databases & Storage: MySQL, PostgreSQL, MongoDB, Redis, S3, Elasticsearch, Cassandra

Projects

Song Recognition System

- Built an end-to-end **Golang** pipeline re-implementing Shazam's algorithm to extract audio fingerprints.
- Integrated **Spotify** and **YouTube** APIs for metadata and downloads; used **FFmpeg** for preprocessing.
- Developed scalable ingestion and matching with **SQLite** and **MongoDB** for efficient fingerprint retrieval.

LLM-Driven Document Summarization Platform

- Streamlined retrieval across millions of documents to accelerate decision-making.
- Orchestrated LLM prompts with **LangChain** and indexing via **Pinecone**; containerized with **Docker**.
- Deployed on **AWS Fargate** for serverless scaling, reducing latency by **30%**.

End-to-End MLOps Pipeline for Image Classification

- Implemented a Kubeflow pipeline for data ingestion, training, and validation; provisioned GPU-enabled Kubernetes clusters with Terraform.
- Reduced manual intervention by 40% and inference latency by 30% through automation.
- Automated ETL decreased data prep time by 35% while ensuring high integrity.

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