Robert Lewis

A Portfolio

GitHub

in LinkedIn

Summary

Motivated Data Engineering 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 through hands-on projects.

EDUCATION

Georgia Institute of Technology (Georgia Tech)

August 2024 - Present

Email: contact@robertlewis.dev

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Master of Science in Computer Science

Atlanta, GA

 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)

September 2019 - June 2023

Bachelor of Science in Statistics and Data Science

Los Angeles, CA

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

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

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

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

Projects

Real-Time Audio Fingerprinting Engine — Golang, MongoDB, FFmpeg, REST APIs

- Created a **Golang** pipeline to extract audio fingerprints for real-time song IDs.
- Integrated **Spotify/YouTube APIs** and **FFmpeg** for metadata retrieval and audio preprocessing.
- Enabled scalable matching with **MongoDB** and **SQLite** for efficient fingerprint storage and retrieval.

AI-Driven Document Summarization Suite — Python, LangChain, Pinecone, Docker, AWS

- Streamlined retrieval of millions of documents (e.g., reports, articles) to speed up decision-making.
- Leveraged LangChain for LLM prompts and Pinecone for indexing; containerized with Docker.
- Deployed on **AWS Fargate** for serverless scaling, cutting latency by **30%**.

Automated MLOps Pipeline for Image Analytics — Kubeflow, Kubernetes, Terraform, ETL

- Developed an MLOps pipeline with Kubeflow for ETL in image classification tasks.
- Managed **Kubernetes clusters** via **Terraform** to enhance scalability and resource efficiency.
- Automated container orchestration with ETL workflows, minimizing manual oversight by 40%.

CERTIFICATIONS

CompTIA Network+

CompTIA Security+