

Joshua (Stapley) Montoya

Relocating to Los Angeles, CA from Salt Lake City, UT – Available Now

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PROFESSIONAL SUMMARY

Systems engineer with a Master of Computer Science and over 10 years of experience delivering scalable automation and data solutions for complex aerospace systems. Strong expertise in Python and SQL.

TECHNICAL SKILLS

Languages: Python, SQL, C++, C, C#, R, JavaScript

Data & ML: Airflow, Pandas, DuckDB, NumPy, scikit-learn, TensorFlow, Keras, OpenCV

Cloud & Infrastructure: Google Cloud Platform (GCS, BigQuery), Docker, Terraform, Git

Visualization / Web: Dash, Plotly, Flask, D3.js, Looker

PROFESSIONAL EXPERIENCE

Senior Systems Engineer

L3Harris Technologies, Inc

October 2015 – Present
Salt Lake City, UT | Remote

- Built on-demand ETL workflows with Python and DuckDB to ingest and validate data from diverse sources and load it into structured databases.
- Reconciled IDs between disparate schemas to automate data flow and eliminate redundant work across asynchronous development timelines.
- Built Python-based batch ingestion workflows to migrate engineering data from flat files into centralized databases, reducing manual entry time from minutes to seconds per record.
- Automated generation of structured failure analysis datasets from existing records using Python and DuckDB, reducing analysis time by over 50%.
- Managed and optimized relational production databases, diagnosing bugs and deploying schema updates to support high-priority projects.
- Served as the department representative in system-level design and integration reviews for the largest project in a 3,000-person division, driving decisions on data integration and system reliability.

Intern, Advanced Engineering

Teleflex, Inc

May 2014 – August 2014
Reading, PA

- Developed a C-based prototype device ingesting and processing real-time image data for catheter tracking.

SELECTED TECHNICAL EXPERIENCE

NYC Building Permits Mapping – Built a batch ELT pipeline ingesting NYC building permits data into BigQuery for geospatial analysis and visualization. (Airflow, Terraform, Python, BigQuery, Docker, PostgreSQL)

Machine Learning-Based Forest Mapping – Developed a 3D-convolutional neural network that classifies tree species in the Wasatch Range from aerial imagery, for display in a web application. (Python, CNNs, Dash)

Plant Monitoring IoT Device – Designed a battery-powered IoT plant monitor transmitting sensor data via Bluetooth to an iOS application. (Python, Swift, Arduino)

EDUCATION

Master of Computer Science

University of Illinois Urbana-Champaign

2023

Bachelor of Science in Electrical Engineering

Brigham Young University

2015