Maheshwari Rathod – AI Pipeline Developer

Technical Project Summary

Project: Pathway AI Pipelines
Tech Stack: Python, Rust backend, Docker, REST APIs, Pathway Live Data Framework, GPT■4o, LangChain, LlamaIndex, PostgreSQL, Kafka, S3, SharePoint, Google Drive.

• Built end■to■end AI pipeline automation for multimodal RAG (Retrieval■Augmented Generation) optimized for real■time document indexing and synchronization.
• Implemented and tuned vector & hybrid indexes (USearch + Tantivy) for scalable, low■latency retrieval across millions of documents.
• Enhanced modular pipeline architecture enabling 1■line integration of new data sources and embedding models.
• Optimized Adaptive RAG to cut token cost by ~4× while preserving accuracy.
• Deployed containerized pipelines (Docker) with Streamlit UI & REST endpoints for reproducible cross■platform deployments.
• Followed open■source best practices – CLA, CI/CD testing, and peer code review under the Pathway community.

Core Focus: building scalable AI infra, optimizing model serving pipelines, and integrating hybrid retrieval for enterprise■level RAG systems.