

GO

Gregory Ollivierre

AI Engineer | Agentic AI & LLM Pipelines

Trinidad & Tobago · Open to remote work & relocation

gr3gory.ollivierre@gmail.com

+1 868 341 8022

linkedin.com/in/ollivierregregory

SUMMARY

Senior AI Engineer with 4+ years of production experience building and deploying end-to-end AI systems at scale, backed by 10+ years of professional Python development. Specialises in Python microservices (FastAPI), real-time inference pipelines, and AI application-layer architecture on GCP (including Vertex AI) and AWS. Proven track record designing robust data pipelines, deploying predictive models into live products, building agentic systems with Google Agent Development Kit (ADK) and other agent frameworks, integrating tools and services through Model Context Protocol (MCP), and designing production logging and observability architectures for reliable AI services.

SKILLS

AI & LLM

LangChain, LangGraph, Google Agent Development Kit (ADK), Model Context Protocol (MCP), Vertex AI, LLM orchestration, agent pipelines, tool calling, RAG, Reinforcement Learning, context engineering

Backend

Python (10+ years), FastAPI, microservices architecture, REST APIs, real-time inference, GCP, Vertex AI, AWS

ML / Data

Observability & Logging

Langfuse, RAGAS, DeepEval, structured/centralized logging, tracing, metrics, correlation IDs, evaluation dashboards, production monitoring

Databases

BigQuery, PostgreSQL, Firestore, Qdrant, Pinecone (vector stores), graph DBs, data pipeline engineering

PyTorch, TensorFlow, Scikit-Learn, LightGBM,
time-series forecasting, feature engineering

EXPERIENCE

Omega Crop — AI Engineer, Geospatial ML

June 2021 – Present

- Led the architecture and evolution of a production AI platform on Google Cloud, spanning data ingestion, model training, evaluation, and real-time inference.
- Designed and deployed production-grade Python microservices using FastAPI for real-time model inference and API integration into live agricultural analytics products.
- Built LLM orchestration pipelines using LangChain, LangGraph, and Google Agent Development Kit (ADK), including multi-step agent workflows, tool use, structured output handling, and reusable agent-development patterns.
- Integrated agent tools and backend services through MCP patterns, enabling standardized context and tool access across agent workflows.
- Implemented RAG systems using Qdrant and Pinecone vector stores for context-augmented inference, managing embedding pipelines and retrieval tuning.
- Designed logging and observability architecture using Langfuse, structured logging, tracing, evaluation dashboards, and cost/quality monitoring; ran systematic evaluations with RAGAS and DeepEval.
- Built end-to-end data pipelines and query-optimized data models on Google BigQuery, supporting large-scale ML workflows and reliable downstream consumption.
- Built, trained, and deployed predictive ML systems for grass-growth forecasting using PyTorch, LightGBM, and ensemble methods, delivering decision-critical outputs used directly by customers and internal teams.
- Integrated drone imagery and remote-sensing datasets into ML pipelines, extending spatial resolution and context quality for downstream AI/agricultural tasks.
- Contributed to LLM-enabled, agent-style workflows exploring retrieval over structured and geospatial data and AI-assisted decision support.

ION Geophysical — Senior Field Geophysicist

Feb 2010 – Jun 2022

- Engineered scalable data pipelines for 4D geospatial analysis integrating multi-source datasets.
- Designed Python and C++ automation tools to standardize QC workflows, reducing manual effort and increasing throughput across large data acquisition campaigns.
- Applied real-time anomaly detection via signal analysis across large-scale streaming data, with operational logging and monitoring for time-critical QC workflows.
- Spearheaded new QC protocols standardizing data acquisition across seismic campaigns; trained junior staff on equipment operation and safety.
- Led cross-functional teams in high-stakes, time-critical field and offshore environments.

Geotrace Technologies Inc. — Marine Geophysicist

Jan 2008 — Jan 2010

- Built and maintained Python and C++ tools to automate QC tasks at scale across seismic acquisition pipelines.
- Supported implementation of scalable data pipelines integrating multi-source geospatial datasets.
- Applied signal-analysis techniques to detect real-time anomalies in seismic data, expediting troubleshooting.

Schlumberger — Seismic Engineer

Feb 2006 — Feb 2008

- Facilitated seismic data acquisition, processing, and interpretation for hydrocarbon exploration across onshore and offshore sites.
- Prepared comprehensive technical reports and data summaries to aid client decision-making.

EDUCATION

- Master of Science in Data Science — University of the West Indies, St. Augustine (2020)
- BSc in Mathematics & Physics — University of the West Indies (2006) · Minors: Computer Science, Electronics

CERTIFICATIONS & PUBLICATIONS

Certifications

- NVIDIA DLI Certificate — Fundamentals of Accelerated Computing with CUDA C/C++
- Algorithms: Design and Analysis, Part 1
- The Data Scientist's Toolbox
- An Introduction to Interactive Programming in Python

Publications

- Automatic mixed precision and distributed data-parallel training for satellite image classification using CNN
- Anomaly Detection of Marine Seismic Airgun Signatures using Semi-Supervised Learning

LANGUAGES

- English: Native
- Spanish: Professional working / Intermediate (B1)
- Portuguese: Beginner (A1) — actively developing for the LatAm market

