Gloryson Ondanje

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PROFESSIONAL SUMMARY

Machine Learning Engineer with 3+ years of experience designing, training, and deploying machine learning models in production. Skilled in building end-to-end ML systems across computer vision, NLP, and predictive analytics domains. Proficient in Python, TensorFlow, and PyTorch, with strong expertise in model optimization, data pipelines, and evaluation metrics. Adept at translating complex business requirements into robust ML solutions, optimizing performance, and collaborating in agile, cross-functional environments.

WORK EXPERIENCE

09/2023 – Present
Vilnius, Lithuania
(Remote)

Software Developer
AAI Labs

- Developed a custom **LLM-based API** for **health analytics** using WHO guidelines, **RAG**, and **Vector Search** achieving an answer relevancy score of 92% and a faithfulness score of 88%.
- Designed and deployed a **Reinforcement Learning** (Actor-Critic Networks) based **self-tuning PID controller** for drone altitude achieving an overshoot error of 0.22% and steady-state error of 0.03%
- Architected a georeferencing service integrating **YOLOv12** object detection, **DINOV2** embeddings, **trigonometric raycasting**, and **camera intrinsics** for drone localization attaining a success rate of 95% below 25m GPS error.
- Built and deployed an **Atlassian Forge app** (Critto) that **automates PR reviews** validating them against defined acceptance criteria attached to a Jira issue.

05/2023 – 10/2024
Addis Ababa, Ethiopia
(Remote)

Machine Learning Engineer (Freelance)
Gebeya Inc.

- Developed **regression** and **classification models** for client projects, applying **hyperparameter tuning** and **data preprocessing**.
- Streamlined data pipelines with **Pandas** and **PySpark**, improving training efficiency.
- Deployed **containerized ML services** with **Docker** and **FastAPI** for scalable production environments.

05/2023 – 08/2023
Nairobi, Kenya

ERP Developer Internship
Millenium Solutions EA Ltd.

- Developed and customized solutions using **Microsoft Dynamics NAV**, enhancing operational efficiency and meeting specific business needs.

EDUCATION

09/2019 – 09/2023
Embu, Kenya

Bsc. Computer Science
University of Embu.

SKILLS

Languages & Frameworks
Python, Rust, Java, React.js

ML Libraries & Tools
PyTorch, TensorFlow, Scikit-Learn, Pandas, NumPy, OpenCV, NLTK, LlamaIndex, LangChain, Faiss, DeepEval

ML Domains
Supervised Learning, Unsupervised Learning, NLP, Computer Vision, Time-Series Analysis, Reinforcement Learning, Robotics (ROS2, PX4, Gazebo), RAG

Data & Cloud
Databricks, PySpark, GCP, Azure, PostgreSQL, RabbitMQ

MLOps & DevOps Tools
Docker, Kubernetes, Helm, ArgoCD, Terraform, CI/CD

Methodologies
Feature Engineering, Model Optimization, Evaluation Metrics, Agile, Scrum

API Development (Backend Frameworks)
FastAPI, Django, Flask

Async/Parallelism
AsyncIO, Celery, Redis

PROJECTS

11/2025 **Boeing 737 Operations Manual RAG System**

- Developed an **Advanced Retrieval-Augmented Generation (RAG)** system for querying the Boeing 737 Operations Manual, integrating **semantic search (BGE-M3)**, **BM25**, and **cross-encoder reranking** for high-accuracy technical lookup.
- Implemented a **contextual PDF-ingestion pipeline** using **OCR** and **Gemini-based chunk enrichment**, achieving **80% Hit@1** accuracy and **page-level citation tracking** through a **FastAPI** service.

08/2025 **Real-Time Stock Trading Simulation Platform**

- Engineered a **distributed trading system** with **microservices architecture**, implementing an **order matching engine** that processes buy/sell orders with a **price-time priority algorithm** and delivers **real-time order book updates** via **WebSocket** connections.
- Designed **message-driven architecture** using **RabbitMQ**, integrated **Docker** for scalable deployment, and built a **responsive web interface** with live trade visualization and **sub-second** price updates.

06/2025 **Fuel Route Optimizer API**

- Built a **Django REST API** to optimize fuel stops by combining **geospatial data**, **fuel price datasets**, and **OpenRouteService APIs**.
- Added **cost estimation**, **route geometry generation**, and **caching** mechanisms to improve performance and reduce latency

01/2025 **Mars Rock Detection with ROS2 + YOLOv11**

- Implemented a real-time **object detection** system using **YOLOv11**, **ROS2**, and **OpenCV,** achieving **0.71 mAP@50** in a Mars simulation environment.
- Utilized **ROS2 Humble** packages for robotic control and message handling (**rclpy**, **sensor_msgs**, **geometry_msgs**)