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Professional Summary

Machine Learning and Artificial Intelligence Engineer with extensive experience designing, developing, and deploying end-to-end AI systems. Highly skilled in LLMs, intelligent agents, retrieval-augmented generation (RAG), computer vision, reinforcement learning, and automation pipelines. Backend engineering remains a strong secondary capability enabling full-stack implementation of scalable AI products. Co-Founder and COO of Payvite, with a proven ability to deliver production-ready solutions, optimize infrastructure, and solve complex technical problems across diverse industries.

Professional Experience

Freelance Python Developer & ML Engineer — Remote

July 2022 – Present

• Developed predictive models and performed descriptive analytics for diverse datasets, generating actionable insights for clients.
• Built MapReduce NLP pipelines on Hadoop for high-efficiency word frequency analysis and large-scale text processing.
• Integrated large language models (LLMs) into production systems in collaboration with multi-disciplinary teams.

Custom Object Detection and Tracking:
– Trained custom YOLO models for multi-class vehicle detection.
– Built a multi-lane vehicle tracking and counting system for real-time traffic analytics.

Reinforcement Learning and Retrieval-Augmented Generation (RAG):
– Developed a complete RAG pipeline including RLHF, SFT, reward modeling, and deployment on Hugging Face.
– Implemented cloud-based RAG on Paperspace and AWS EC2 for scalable inference.

Optimization of Object Sorting, Tracking, and Paddle Game Analysis:
– Improved multiple tracking pipelines using DeepSORT, FairMOT, and ByteTrack.
– Engineered an AI system for live paddle game analysis (ball tracking, shot detection, re-ID, gender detection).
– Trained LA Transformer re-ID models and YOLO models for multiple detection tasks.

– Created modular Dockerized services for open-source and closed-source components.
– Built internal APIs for video recording, dataset generation, and camera validation.

AI Storyboard Video Generation Pipeline:
– Built T2I, I2I, and 3D asset pipelines using ComfyUI, Tripo SR, Gaussian Splatting, Hunyuan 3D, and Plan2Scene.
– Developed API endpoints for all workflows and implemented Blender bpy scripts for .glb scene generation.

Agent ERP System:
– Deployed and configured multiple services via Docker (Postal, Chatwoot, Chartbrew, OsTicket, Documenso).
– Integrated SMTP, S3-compatible storage (Garage, Minio), and API proxies.
– Configured Higgs Audio (TTS/STT) and Voxtral for agent automation on AWS EC2.
– Set up Qwen Coder for code generation features.

bCompetitive (Scraping, Automation, AI Integration)
(https://www.bcompetitive.ai/)
– Designed and rebuilt browser automation strategies for Wayfair, Build.com, and Amazon scraping.
– Fixed the Recommended Price API pipeline by correcting malformed Celery → API request formatting.
– Currently building a Product Fetch API with improved normalization, caching, and scalable endpoints.

Machine Learning/AI Engineer — Cereus EdTechnologies (Remote/Part-time)

March 2024 – July, 2025(https://cereustechnologies.com/)
• Built, maintained, and optimized RAG systems for multiple client use cases.
• Integrated ML solutions into production environments using REST APIs.
• Contributed to research, architecture design, and prototyping of new AI features.

Machine Learning Research Assistant — FUTO

October 2022
• Researched feature extraction methods with a focus on Local Binary Patterns (LBP).
• Preprocessed and analyzed the PlantVillage dataset for classical ML workflows.
• Evaluated LBP performance across classifiers in a team research setting.

Machine Learning Engineer & Technical Writer — AlphaWorld, Dubai (Remote)

December 2022 – October 2023
• Developed recommendation algorithms for a social media platform.
• Authored technical documentation (SRDs, PRDs).
• Supported backend teams in algorithm deployment and pipeline optimization.

Co-Founder & COO — Payvite, Lagos, Nigeria

September 2023 – Present
• Co-founded and led development of fintech platform enabling secure cross-border payments.
• Integrated payment gateways and improved system reliability and scalability.
• Managed product design, engineering workflows, and day-to-day business operations.
• Achieved over $100k in processed transactions within the first 12 months.

Projects

Kontext Meeting Agent

• Built an AI-powered meeting assistant capable of:
– Recording meetings in real time
– Generating concise meeting summaries
– Sending structured summaries to teammates and Notion pages on request
• Implemented using FastAPI, WebSockets, LLMs, and long-context memory structures.

Paylio (Fintech Web App)

• Developed using Django REST Framework and PostgreSQL.
• Implemented real-time notifications, multi-user roles, and request-money features.

Home Assistant Robot

• Built a four-wheeled autonomous robot using YOLO for object detection and voice commands.

AI Agent for Blockchain and Crypto Tasks (Eclipse Agent)

• Developed with LangGraph, FastAPI, and Streamlit for multi-tool autonomous operations.
• Supports coding tasks, Base Network operations, and intelligent workflow execution.

Education

Bachelor of Science in Mechanical Engineering
Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria
April 2017 – August 2024

Skills

• **AI & Machine Learning:** LLMs, RAG, NLP, Computer Vision, Reinforcement Learning, Deep Learning, Transformers, 3D Generation
• **Frameworks & Tools:** PyTorch, TensorFlow, LangChain, LangGraph, FastAPI, Django, ComfyUI, Blender (bpy), Hadoop
• **Backend & API Development:** REST APIs, Serverless Architecture, Microservices
• **MLOps:** AWS EC2, Runpod, Docker, Cloud Deployment
• **Data Analysis:** NumPy, Pandas, Matplotlib, Seaborn
• **Database Management:** PostgreSQL, MySQL
• **Other:** 3D Gaussian Splatting, Texture Synthesis, Object Tracking

Certifications

• Azure AI Fundamentals

Interests

• Blockchain, Music, Fashion Design