Motheo Treasure Puso

Arlington, TX | +1 (682) 226-0897 |LinkedIn| Portfolio | GitHub

EDUCATION

UNIVERSITY OF TEXAS, ARLINGTON
Master of Science - Computer Science
Relevant Coursework: Distributed Systems, Machine Leaning
Cloud Computing & Big Data, Software Testing
August 2025-Current

MICHIGAN STATE UNIVERSITY
Bachelor of Science - Computer Science
Bachelor of Arts - Finance
Double Degree
Aug 2019 - Aug 2024

SKILLS & TOOLS

- **Big Data & Streaming:** Apache Spark (Structured Streaming, Spark SQL, MLlib), Kafka, Hadoop (HDFS, MapReduce)
- **Languages**: Python, Java, SQL

- **Backend & Frameworks**: Flask, Django, LangChain, gRPC,
- **Cloud & DevOps**: AWS (EC2, IAM, S3, RDS, VPC, CloudWatch), Terraform, Docker, Kubernetes
- **Methodologies & Practice**: Agile (Scrum), CI/CD, Test Automation
- **Databases**: PostgreSQL, Redis

TECHNICAL PROJECTS

Real-Time Anomaly Detection Pipeline on Distributed Data   *Aug '25 – Feb '26*
- Engineered a distributed streaming pipeline using Spark Structured Streaming and Kafka processing 10M+ events/hour across a multi-node Hadoop cluster
- Built custom MapReduce feature-engineering workflows over 50GB+ logs, reducing preprocessing runtime 68% versus single-node execution
- Integrated an Isolation Forest model into Spark ML enabling sub-500ms real-time anomaly detection

Distributed Library Management System   *Aug '25 – Dec '25*
- Built fault-tolerant microservices with gRPC, Docker, and Terraform, handling 3x peak load
- Implemented PostgreSQL with Raft consensus for distributed coordination, achieving 99.999% availability
- Conducted load testing and simulations to validate fault tolerance under network partitions and failures.

AI-Powered WhatsApp Business Integration   *Apr '25 – Jul '25*
- Developed WhatsApp Business API integration with Flask endpoints and webhook management for real-time messaging.
- Designed RAG pipeline with vector embeddings and PostgreSQL for context-aware AI query responses.

WORK EXPERIENCE

ALLY FINANCIAL - Software Engineer Internship - (University-Industry Collab)   *Jan '24 – May '24*
- Built and deployed an AI support bot using Flask, LangChain, and AWS, leveraging scalable cloud infrastructure to boost user engagement by 30%.
- Optimized LLM performance through prompt engineering and vector embeddings, reducing query latency by 25%
- Created a RESTful API linking the support bot with a React frontend, improving response handling and user experience. Leveraged AWS EKS for scalability and S3 for secure, reliable storage.

ALTAIR ENGINEERING INC. - Software Engineer Intern   *May '22 – Dec '22*
- Leveraged Monarch and Python to automate data validation processes, resulting in a 22% error reduction.
- Automated data processing pipelines with Pandas & NumPy for technical evaluations and demos, improving efficiency by 35%.
- Developed testing scripts with PyTest to validate software performance and identify system bottlenecks

MSU – STUDENT GOVERNMENT CENTRAL STAFF - Director of Technology   *Mar '22 – Aug '24*
- Developed the MSU news application (Spotlight) using ReactNative and Python, achieving 5,000+ downloads.
- Implemented monitoring dashboards with Grafana to track uptime and performance, improving reliability.
- Managed platform infrastructure serving 30,000+ students with Git version control and CI/CD workflows

CERTIFICATIONS

AWS Cloud Solutions Architect
Accomplishments: National Top Achievers Scholarship, Undergrad and Grad level, Botswana