Tinsae Shemalise Yared

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Date of Birth: 2001-06-27 00:00:00 | Gender: Male | Nationality: Ethiopian

Profile Summary

I'm a fullstack engineer and AI-focused data engineer with a passion for building intelligent, end-to-end systems. With experience across the entire development stack–from designing robust backend infrastructures and scalable APIs to deploying machine learning models in production–I create technology that transforms complex data into accessible, impactful solutions.

My work spans multiple domains: I've built credit scoring systems using behavioral data, fraud detection pipelines using transaction patterns and geolocation, and localized NLP models for Amharic business entity recognition. I've also developed real-time dashboards and low-latency APIs using FastAPI, PostgreSQL, and modern frontend frameworks, integrating everything into streamlined CI/CD pipelines.

Fluent in Python, JavaScript (React/Flutter), and C++, I build performance-optimized tools and platforms that are both technically sound and user-centric. Whether it's creating AutoML pipelines, deploying lightweight LLMs on edge devices, or developing custom infrastructure for high-volume data systems, I approach every project with a blend of technical rigor and social impact.

My goal is to work on solutions that not only solve hard problems–but also widen access to financial tools and services. That's why I'm especially aligned with Kifiya Financial Technologies' mission to use AI for economic empowerment across underserved communities.

Work Experience

Software Engineering Intern at Perago Information Systems PLC (2024-03-01 00:00:00 - 2024-06-30 00:00:00)
Location: Addis Ababa Ethiopia
Responsibilities: Developed a code generation tool that automates the design and creation of fully functional and customizable NestJS CRUD API codebases from UML diagrams.

As part of a collaborative team–including five interns and senior software engineers–I contributed to the development of an electronic government procurement system. My primary responsibility was to

transform UML system designs into NestJS codebases using the custom code generation tool.

In addition to code generation, I resolved technical issues, implemented backend features with NestJS, and integrated SeaweedFS, an open-source distributed storage system, to enhance file handling capabilities.

AI Software Engineer at Kifiya Financial Technology PLC (2025-02-10 00:00:00 - 2025-05-10 00:00:00)

Location: Addis Ababa Ethiopia

Responsibilities: In my current role, I've contributed to a wide range of projects spanning data processing, platform development, and applied AI systems. I was responsible for data cleaning and correction tasks that ensured the accuracy and reliability of core datasets, as well as developing features for the PRM (Partner Relationship Management) platform to enhance functionality and user experience.

I also worked on an OCR-based financial statement recognition system, building components that extract structured data from scanned documents to streamline financial analysis. One of the more experimental projects I led was the development of an intelligent avatar system for guest reception. For this, I designed and animated the avatar character and built a self-reflective Retrieval-Augmented Generation (RAG) pipeline to generate more context-aware and natural responses—improving both the realism and usefulness of user interactions.

Education

Bachelor's Degree in Software Engineering

Institution: Addis Ababa Institute of Technology | Dates: 2021-06-10 00:00:00 - 2024-06-30 00:00:00

Location: Addis Ababa, Ethiopia

Certification/Online Courses in KAIM - AI Mastery Program

Institution: 10 Academy | Dates: 2024-08-05 00:00:00 - 2024-11-01 00:00:00

Location: Online

Certification/Online Courses in Machine Learning

Institution: Addis Ababa Institute of Technology | Dates: 2023-08-01 00:00:00 - 2024-09-01 00:00:00

Location: Addis Ababa, Ethiopia

Certification/Online Courses in STATSX0001: Statistical Learning

Institution: Stanford Online | Dates: 2023-08-01 00:00:00 - 2023-08-30 00:00:00

Location: Online

Certification/Online Courses in HCIA-AI Course

Institution: Huawei ICT Academy | Dates: 2023-12-01 00:00:00 - 2023-12-30 00:00:00

Location: Online

Skills & Tools

Technical Skills:

- Programming Languages: Python, TypeScript, JavaScript, C++, Go, SQL

- Web & Backend Development: NestJS, FastAPI, Express.js, Node.js

- Frontend Development: React, NextJS, Flutter, HTML/CSS, TailwindCSS

- Machine Learning & AI: Scikit-learn, TensorFlow, PyTorch, OCR, RAG, LLMs, Transformers

- Data Engineering: Pandas, NumPy, SQLAlchemy, MLflow, Apache Airflow, ETL pipelines

- Data Storage & Databases: PostgreSQL, SQLite, Redis, SeaweedFS (Distributed File System)

- NLP & LLM Workflows: LangChain, LangGraph, Hugging Face Transformers, Tokenization, NER

- DevOps & CI/CD: Docker, Git, GitHub Actions

- API Design & Integration: REST APIs, CRUD generators, OpenAPI/Swagger

- Visualization & Dashboards: Plotly Dash, Bootstrap, Streamlit

- Cloud & Deployment: AWS (EC2 basics, S3), Vercel, Railway, Raspberry Pi (Edge Deployment)

Soft Skills:

- Problem Solving: Strong analytical mindset for debugging, optimization, and innovation

- Team Collaboration: Experience working in cross-functional teams with interns and senior engineers

- Adaptability: Quick to learn and apply new technologies across domains

- Communication: Skilled at documenting and presenting complex technical work clearly

- Leadership: Independent project ownership (e.g., avatar system, credit model, AutoML tools)

Languages

Amharic, English