

BILISUMA TADESSE

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PROFESSIONAL SUMMARY

Software Engineer who builds AI-powered applications and MVPs. Currently AI System Engineer at Cooperative Bank of Oromia, developing RAG systems and LLM integrations using FastAPI, LangChain, and OpenAI API. Experience with full-stack development and building automation systems serving 700+ endpoints in production. Can work independently from concept to deployment.

TECHNICAL SKILLS

AI & LLM: LangChain, LangGraph, OpenAI API, RAG Systems, Vector Databases, Prompt Engineering, Agentic AI
Backend & APIs: FastAPI, Django, Python, REST APIs
Databases: PostgreSQL, MySQL, Vector Databases (Pinecone, Supabase)
Frontend & Mobile: React, JavaScript, Flutter, Tailwind CSS
DevOps & Tools: Docker, Git, Linux, Nginx
Programming Languages: Python, JavaScript, Java

PROFESSIONAL EXPERIENCE

AI System Engineer – AI Foundry Team Sep 2025 – Present
Cooperative Bank of Oromia Addis Ababa, Ethiopia

- Building experimental AI-powered products using FastAPI, LangChain, and OpenAI API
- Implementing production-grade RAG workflows and vector search capabilities for knowledge retrieval
- Developing full-stack prototypes with React frontends and Python backends
- Leading system integration, testing, and deployment for internal AI initiatives

Software Engineer Jan 2025 – Sep 2025
Cooperative Bank of Oromia Addis Ababa, Ethiopia

- Developed digital banking prototypes on Temenos Quantum platform
- Built Tencent Cloud Super App as a Service (TCSAS) Miniapp prototypes
- Collaborated with vendor teams on technical validation and solution delivery

Associate Card Banking Officer – Payment Switch Project Team Nov 2023 – Jan 2025
Cooperative Bank of Oromia Addis Ababa, Ethiopia

- Supported implementation of Bank Switch, POS network, Mastercard, and Visa integration
- Developed EJSYNC: automated ATM log collection system serving 700+ terminals (Python, Django, React)
- Built Consolidator App: card file processor cutting issue identification from 6–8 hours to minutes
- Enabled near-real-time EJ availability for reconciliation and dispute teams

FEATURED PROJECTS

PyPilot – AI Coding Agent for VS Code | FastAPI, LangGraph, OpenAI, TypeScript Feb 2026

- VS Code extension using LangGraph's ReAct pattern for autonomous code editing
- Built FastAPI backend orchestrating AI agents with file operation tools
- Implemented visual diff interface with accept/reject controls
- Integrated OpenAI (GPT-4, GPT-5) and Groq (Llama) models with streaming responses

Knowledge Base RAG Assistant | Flowise, Supabase, n8n, OpenAI Sep 2025

- Built RAG-based knowledge assistant during 24-hour AI Foundry Hackathon, achieved 2nd place out of 6 teams
- Designed end-to-end RAG pipeline with document processing and semantic search
- Integrated Flowise workflows with Supabase and Pinecone vector databases
- Built web interface using Lovable and implemented LLM observability with LangSmith

EJSYNC – ATM Log Automation | Python, Django, React, MySQL Oct 2024 – Apr 2025

- Architected and developed automated log collection system for 700+ ATM terminals
- Built multithreaded Python server handling concurrent uploads from distributed endpoints
- Developed Django + React web dashboard for monitoring and analytics
- Enabled near-real-time EJ availability and reduced sync failures by 95%, improving operational visibility

Consolidator App – Card File Processor | Python, PySide6 Apr 2024 – May 2024

- Desktop application for processing EMV-encoded card embossing files from 700+ branches
- Built custom parser for complex banking data formats with duplicate detection
- Cut issue identification from 6–8 hours to minutes with automated duplicate and error checks

CERTIFICATIONS

Foundation: Introduction to LangGraph (Python) – LangChain Academy (Feb 2026)
Foundation: Introduction to LangChain (Python) – LangChain Academy (Jan 2026)
Agentic AI – DeepLearning.AI (Nov 2025)
Retrieval Augmented Generation (RAG) – DeepLearning.AI (Oct 2025)
Machine Learning Specialization – DeepLearning.AI (Jul 2025)
FastAPI Essentials for Python Developers – CodeSignal (Jul 2025)
Meta Full-Stack Engineer Certificate – Meta (Feb 2025)

EDUCATION

BSc in Computer Science and Engineering
Adama Science and Technology University

Oct 2017 – Jul 2022
CGPA: 3.67/4.00, Major GPA: 3.87/4.00