

Bayisa Balcha

AI-Powered Full-Stack Developer | RAG, Agentic AI & Intelligent Automation Specialist

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📍 Adama, Oromiya, Ethiopia

🔗 on-one-page.vercel.app



TECHNICAL SKILLS

AI & Machine Learning

Retrieval-Augmented Generation (RAG)
• LangChain • Agentic AI • Vector Databases (Pinecone, pgvector) • Embeddings • LLM Integration (OpenAI, Gemini) • Prompt Engineering • Hugging Face Transformers • n8n AI Workflows

Frontend

Next.js • React • TypeScript • Tailwind CSS • HTML5/CSS3 • JavaScript (ES6+) • Responsive Design • PWA

Backend & Automation

Next.js API Routes • Node.js • Python (FastAPI/Flask) • REST APIs • n8n • Multi-channel Integrations (WhatsApp, Telegram, LinkedIn, Email) • Authentication (NextAuth.js) • Serverless Functions

Databases

MongoDB • PostgreSQL (pgvector) • Firebase/Firestore • MySQL • Prisma ORM

Tools & Deployment

Git/GitHub • Vercel • Netlify • Docker • VS Code • npm/yarn • Linux • CI/CD



PROFESSIONAL SUMMARY

Innovative Full-Stack Developer specializing in AI-powered web applications and intelligent automation systems. Experienced in designing and deploying Retrieval-Augmented Generation (RAG) pipelines, agentic AI solutions, and LLM-driven applications using Next.js and Python.

Proven ability to transform advanced AI capabilities into scalable, user-centric platforms, including the development of a document scanning and intelligent document processing system powered by a custom RAG architecture. Skilled at integrating LLMs with modern web technologies to create practical tools that solve real-world problems.

Experienced in building automation and AI workflows using platforms like n8n, enabling solutions such as AI-driven customer support systems, Telegram bots with text, voice, and real-time interactions, and multi-channel integrations across WhatsApp, LinkedIn, email, and other communication platforms for lead generation and automated engagement.

Passionate about developing impactful AI solutions, from agricultural information dissemination systems to intelligent knowledge retrieval platforms. Currently pursuing a BSc in Software Engineering and seeking to contribute this multidisciplinary expertise in AI engineering, full-stack development, and automation to an innovative and forward-thinking development team.



PROFESSIONAL EXPERIENCE

Freelance AI & Full-Stack Web Developer

2023 – Present | Remote (Ethiopia-based)

Architect and deploy full-stack AI applications with RAG pipelines, agentic AI, and intelligent automation systems for clients in agriculture, business, and community sectors. Developed a production-ready Intelligent Document Scanner & RAG System allowing PDF uploads and natural-language querying with high-accuracy context retrieval (LangChain + Pinecone + OpenAI). Built advanced automation workflows using n8n, including AI-powered customer support agents, Telegram bots (text + voice + real-time), and multi-channel lead-generation systems (WhatsApp, LinkedIn, Email, etc.). Engineered backends with Next.js API routes and Python microservices for document parsing, embedding generation, vector storage, and LLM inference. Designed responsive, mobile-first, low-bandwidth-optimized UIs with Tailwind CSS and PWA capabilities. Deployed on Vercel/Netlify with CI/CD pipelines and serverless functions for cost-efficient AI model hosting.

LANGUAGES

English

Professional (Fluent)

Afaan Oromo

Native

Amharic

Fluent

CERTIFICATIONS & CONTINUOUS LEARNING

Agile Development Practices

Experienced with iterative development, client feedback loops, and rapid deployment.

AI/ML Specialization

Actively building production projects in LangChain, Vector Databases, Agentic AI, and n8n automation workflows.

FEATURED PROJECTS

Intelligent Document Scanner & RAG System

GitHub: github.com/bayedhaf Technologies: Next.js, Python, LangChain, OpenAI, Pinecone, Tailwind CSS
Full-stack RAG application that lets users upload PDFs and ask questions about the content with accurate, context-aware answers.

Agritech-ET – AI-Enhanced Agricultural Platform

Live: agritech-et.me | Portfolio: on-one-page.vercel.app
Technologies: Next.js, MongoDB, Firebase, PWA (RAG integration in progress)
Mobile-first PWA connecting Ethiopian farmers to market prices, services, and best practices. Currently integrating RAG agent for natural-language agricultural knowledge retrieval.