

Behailu Weldeyohannes

Full-Stack Developer | AI Engineer

<https://www.behailu.tech/> | Silver Spring, MD

Professional Summary

Full-Stack Developer and AI Engineer with 8+ years of experience architecting and deploying scalable SaaS platforms and intelligent web applications. Proven expertise in Python, JavaScript, React, and AWS with a track record of launching multiple AI-powered products from concept to market. Specializes in model fine tuning and building private, secure RAG systems using LangChain, local LLMs, and vector databases. Combines deep technical proficiency with legal domain expertise (Master of Laws) to deliver containerized (Docker), compliance focused, and data-driven solutions that align with business and regulatory requirements.

Technical and Behavioral Skills

Languages & Core: Python, JavaScript, TypeScript, Java, SQL, HTML5, CSS3, Mermaid.js, YAML, JSON

Frontend: React, Next.js, Vue.js, Tailwind CSS, Bootstrap, Responsive Design, Streamlit

Backend: FastAPI, Node.js, Django, Flask, RESTful APIs, SQLAlchemy, Celery

Databases: Vector Databases, PostgreSQL, MySQL, Redis, SQLite, Database Design & Optimization

AI/Machine Learning: LLM Integration, RAG, LangChain, Ollama, Prompt Engineering, PEFT (LoRA, QLoRA), Alignment Techniques (RLHF, DPO), NLP, Scikit-learn, Embeddings

Cloud & DevOps: AWS (EC2, S3, RDS), Docker, Docker Compose, CI/CD, Git, Linux, Static Site Generation, Vercel, Render

Tools & Libraries: Typer (CLI), Requests, Unstructured, PyPDF, Crawl4AI, BeautifulSoup, Stripe API, Playwright, Scrapy, Pandas, NumPy, JWT Authentication

Behavioral skills: Curiosity/Learner, Strategic Pragmatism, Communication, Knowledge Sharing, Agility, Problem-Solving & Debugging, End-to-End Project Ownership, Technical Content Creation & Pedagogy, Architectural Design & Refinement

Professional Experience

Founder & Lead Developer | Independent SaaS Ventures

Silver Spring | February 2023 – Present

Led end-to-end development and launch of multiple AI-powered SaaS products, managing full technology stack, product strategy, and market deployment.

ClarityHealth Tech (*clarityhealthtech.tech*)

- Architected AI-driven regulatory intelligence platform helping healthcare organizations navigate HIPAA, FDA, and GDPR compliance requirements.
- Engineered a comprehensive data pipeline using Python, OCR, and NLP models to process unstructured legal and governmental documents.
- Built secure subscription-based frontend with Next.js and integrated Stripe API for recurring payment management.
- Implemented PostgreSQL Full-Text Search with optimized indexing for advanced search functionality.

Compliance Compass (*compliancecompass.tech*)

- Developed ML-powered pre-collection intelligence tool that analyzes Terms of Service to score legal risk of public data sources.
- Built responsive React frontend and high-performance FastAPI backend, demonstrating rapid MVP development capabilities.
- Created GDPR-compliant data handling and privacy protection mechanisms.

ChannelBoostAI (*channelboostai.com*)

- Developed AI-powered platform for YouTube creators providing SEO optimization and automated compliance checking.
- Integrated YouTube Data API and built ML-driven recommendation engine for data-driven content strategies.
- Established CI/CD pipeline with containerized deployment and subscription billing system.

Nimbus SaaS

- Architect containerized SaaS for privacy management with microservices.
- Built a legal data scraping engine using Playwright, Scrapy, and browser automation.
- Developed secure API with JWT, RBAC, and privacy-compliant data flows.
- Delivered intuitive React UI with user analytics and visualization.
- Ensured full GDPR compliance through automated legal workflows.

Pathfinder AI - AI-Powered Immigration Assistance Platform

- Architected and built a full-stack, containerized RAG (Retrieval-Augmented Generation) application to provide expert assistance on U.S. immigration law, leveraging open-source technologies for full data privacy and control.
- Engineered a multi-modal data ingestion pipeline capable of processing and understanding diverse unstructured data sources, including PDFs, DOCX files, websites, structured CSV/JSON data, and more, using a combination of specialized loaders and the Unstructured library.
- Developed a resilient, self-updating knowledge core by implementing an intelligent web scraping agent (Crawl4AI) to periodically fetch and parse official USCIS guidelines, with a robust fallback system to ensure 100% application uptime.

- Built and secured a high-performance backend using FastAPI, exposing a comprehensive RESTful API for all application functionalities, from a core Q&A chat endpoint to specialized form-validation wizards.
- Integrated and orchestrated local, open-source Large Language Models (Ollama/Llama3) and embedding models within a sophisticated LangChain framework, enabling private, secure, and accurate natural language responses.
- Implemented advanced analytical features, including scikit-learn-based document clustering to uncover thematic patterns in the knowledge base and LLM-powered query classification to understand user intent.
- Containerized the entire multi-service application (FastAPI, Streamlit, Ollama) using Docker and Docker Compose, creating a portable, scalable, and production-ready system.
- Delivered an intuitive, multi-page user interface with Streamlit for seamless user interaction, alongside a powerful Typer-based CLI designed for automation and agent-based workflows.

Web Development Fellow | Google

December 2021 – February 2023

- Developed secure, high-traffic web applications using React, Node.js, and modern security best practices for digital advocacy platforms.
- Collaborated within Agile framework utilizing Git version control and comprehensive code review processes.
- Engineered responsive, accessible user interfaces ensuring optimal experience for users with disabilities.
- Applied modern authentication systems and role-based access control for enterprise-level security.

Consultant | International Finance Corporation

Washington, DC | June 2017 – January 2021

- Led data analysis projects identifying operational inefficiencies and providing strategic technology roadmap insights.
- Redesigned critical internal portal using modern web technologies, achieving 75% increase in user engagement.
- Implemented project management methodologies for cross-functional technology initiatives.
- Collaborated with stakeholders to translate business requirements into technical solutions.

Legal Analyst | DCBA Law and Policy

Washington, DC | June 2015 – April 2016

- Analyzed complex healthcare regulations and policy frameworks for digital compliance applications.
- Developed data-driven recommendations translating legal requirements into actionable technology strategies.
- Researched emerging legal technology applications and regulatory technology solutions.

EDUCATION

Bachelor of Science, Software Engineering

Western Governors University | *October 2024*

Master of Laws (LLM), Global Health Law

Georgetown Law Center | *May 2014*

Cloud Application Developer

AWS Cloud Institute | *July 2025*

Certifications

- AWS Cloud Practitioner
- CompTIA Project+
- ITIL Foundation
- AWS Cloud Developer
- IBM Generative AI Engineering (*In Progress*)
- *Meta (Facebook) Social Media Marketing Certificate*
- *Google Analytics Certificate*

Community Impact

The AI Cortex

- Authored a comprehensive, 8-part educational platform teaching the end-to-end lifecycle of modern AI engineering, from Transformer fundamentals to production deployment and ethics.
- Developed all course content, including 50+ deeply technical notes and dozens of custom, interactive Mermaid.js diagrams to explain complex concepts like RAG, LoRA, and DPO.
- Built PromptCraft, a fully-functional, local-first AI application (using LangChain, Gradio, and a local LLM) as a hands-on project for the course, demonstrating mastery of the full development stack.
- Architected and deployed the entire static course website from a private Git repository using a modern CI/CD pipeline.

Ethio AI Insights (*ethioai.tech*)

- Founded and grew a YouTube channel and blog educating Amharic-speaking audiences on AI and legal technology, demonstrating strong technical communication and community-building skills.
- Implemented Google Analytics and cookie consent systems to ensure GDPR/CCPA compliance.
- Published terms of service and privacy policy tailored for a multilingual audience.

Open Source Contributions

Active contributor to legal technology projects and AI education initiatives, creating accessible technical content for diverse audiences.