

André Lobo Teixeira

Senior Software Engineer | Applied AI / LLM Engineer
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Professional Summary

Senior Software Engineer with 6+ years of experience building scalable backend systems and web applications, **now specializing in applied generative AI and LLM-powered products**. Hands-on experience designing **RAG pipelines, LLM integrations, prompt systems, embeddings, and AI-powered assistants using Python** (FastAPI), vector search, and cloud infrastructure.

Background includes **enterprise systems (Spring Boot, microservices)** and startup environments building real AI products in production. M.Sc. in Computer Science with research focus on generative models and probabilistic AI. Strong communicator, mentor, and technical leader seeking to grow into an AI Engineer / LLM Engineer role.

Core Skills

LLM & AI • Prompt engineering & structured prompting • Retrieval-Augmented Generation (RAG) • Embeddings & vector search • LLM APIs (OpenAI-style, open-source models) • Model evaluation & experimentation

Backend & Cloud • Python (FastAPI, Flask) • Java (Spring Boot, Microservices) • AWS, GCP • REST APIs, async systems • Docker, CI/CD

Frontend (supporting) • Angular, TypeScript • React (working knowledge)

Leadership • Team mentoring • Performance reviews • Agile/Scrum

Professional Experience

Full-time employee

DevPro Software Consultancy company (Client Farm Credit Canada)

Senior Software Engineer & Delivery Manager • May 2024 – Present

- Lead modernization of enterprise microservice framework (Spring Boot 3 migration) • Overseeing performance reviews for junior and intermediate engineers • Designed analytics tooling for microservices observability

Intermediate Software Engineer • Sep 2021 – Apr 2024

- Built backend microservices reducing operational costs • Maintain document generation system (PDF automation) • Act as technical bridge between business and engineering teams • Mentored junior developers and reviewed architecture decisions

Applied Generative AI Projects (Startup & Consulting)

Talawa AI – Silicon Valley Startup (Contract)

LLM Backend Engineer • Sept 2023 – Jan 2024

Talawa builds AI-powered brand creation tools.

- Built backend APIs in Python (FastAPI) and integrated LLMs for brand name generation, mission/vision statements, social media content, Logo/icon generation
- Worked with LLM APIs, vector search, and integration with proprietary library for embedding model

Tech: Python, FastAPI, LLM APIs, embeddings, vector search, GCP, Firebase

ConectBR-IA - Brazilian company building a Multi-Tenant AI Assistant Platform

Applied AI Engineer • May 2025 - Present

Building a production AI assistant platform used by real companies and municipalities.

- Designed RAG pipelines using website crawling, document ingestion, vector databases
- Built multi-tenant architecture to host multiple assistants with custom system prompts per client
- Designed and implemented multi-tenant backend architecture
- Integrated WhatsApp as primary interface channel
- Implemented MCP servers for database and system integrations
- Deployed assistants for Water & sewage utility company, Logistics company, Municipal governments

Tech: Python, FastAPI, LLMs, RAG, embeddings, vector DBs, WhatsApp API, Docker, cloud infra

Gign – Video Streaming Startup

Intermediate Software Engineer • May 2020 – Aug 2021

- Worked directly with CTO & President • Led full-stack development • Built video streaming platform using Wowza
- Frontend: Angular, Ionic, TypeScript
- Backend: REST APIs

Junior Software Engineer • Sep 2018 – Apr 2020

- Built REST APIs (Node.js)
- Deployed services on AWS EC2
- Firebase cloud functions
- CI/CD pipelines
- Angular frontend features

Education

M.Sc. in Computer Science University of Regina – Canada

Research focus: • Generative AI • Probabilistic graphical models • Sum-Product Networks

Publications: • FLAIRS • PGM • AAAI

B.Sc. in Electrical Engineering Federal University of Viçosa – Brazil

Focus: • Embedded systems • Control systems • Robotics • Power electronics

Values & Interests

Builder mindset with a passion for applied AI and backend systems. Enjoy mentoring, learning, and working on products with real-world impact. Interested in robotics, automation, and AI-powered tools that solve practical problems.