

Kianoush Haratiannejadi

Senior AI & Backend Engineer · Machine Learning · Product Leader

Production AI/ML in regulated health-tech — real-time claims & fraud detection, agentic LLM systems, and the cloud they run on. \$10M+ in claims adjudicated · 8+ years shipping to production.

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SUMMARY

Senior AI & Backend Engineer with 8+ years shipping machine-learning systems to production — from model and data pipeline to low-latency serving. Specialized in real-time, regulated health-tech (insurance claims adjudication, anomaly and fraud detection on PHI) and agentic LLM systems (LangChain / LangGraph multi-agent orchestration, RAG). Built the infrastructure connecting Canadian pharmacies, prescribers and national insurers — TELUS Health, Medavie Blue Cross, Veterans Affairs Canada — underpinning \$10M+ in reimbursed revenue.

TECHNICAL SKILLS

AI Agents & LLM: LangChain, LangGraph, multi-agent orchestration, RAG, prompt engineering, MCP, LLM evaluation / LLM-as-judge, embeddings, vector search (pgvector), Azure OpenAI

Machine Learning: anomaly & fraud detection, gradient-boosted trees (XGBoost), computer vision, NLP, deep learning, feature engineering, A/B testing & experimentation, model validation, monitoring & observability, TensorFlow, PyTorch, scikit-learn

MLOps & Serving: model serving / inference, MLOps, MLflow, Databricks, Docker, CI/CD, Azure ML, Vertex AI, Grafana

Backend & Data: Python (FastAPI, Django, Flask), Node.js, REST APIs, SQL, PostgreSQL, BigQuery, data pipelines / ETL, FHIR

Cloud: Azure (Functions, OpenAI, PostgreSQL, Blob), GCP, AWS **Frontend:** React, TypeScript, Next.js, React Native / Expo

WORK EXPERIENCE

GojiTech Systems — Team Lead & Senior AI / Backend Engineer

May 2024 – Present · Toronto, ON

- Built real-time insurance claims adjudication wired directly into TELUS Health, Medavie Blue Cross and Veterans Affairs Canada — sub-second decisions, no middleware — underpinning \$10M+ in reimbursed pharmacy revenue.
- Developed anomaly-detection and fraud-prevention models (gradient-boosted trees / XGBoost) on health-claim data (PHI under HIPAA), with A/B testing, scheduled predictive checks and model monitoring to flag reversals and abnormal usage before payout.
- Built guideRx, an AI clinical formulary that scores 30,000+ studies and 100+ research metrics per condition to deliver ranked, point-of-care recommendations.
- Built AutoFlow, document-intake and prior-authorization automation — OCR, classification and AI extraction with priority routing — to cut clinician administrative work.
- Built agentic AI (LangGraph vision agents with RAG over embeddings in a vector database, prompt engineering, LLM-as-judge evaluation); owned backend, model serving and cloud on Azure with CI/CD and Grafana observability; technical lead for the team.

Kaidu.ai — Data Scientist / Machine Learning Engineer

Feb 2021 – Nov 2023 · Toronto, ON

- Trained and deployed crowd-intelligence models at 95% accuracy from Wi-Fi signals, running live across Montreal's public parks.
- Re-architected the backend on GCP and Azure (Docker, Flask, Django REST), cutting deployment time 50% and operational cost 30%.
- Built feature and data pipelines (ETL) on BigQuery, PostgreSQL and Azure Blob (SQL); reduced data-processing errors 40% in a high-throughput, low-latency system.

DNEG — Python Developer / Assistant Technical Director

May 2021 – Aug 2021 · Montreal, QC

- Integrated AI object-detection and background-masking into video-editing pipelines at the Oscar-winning visual-effects studio.

Saintrino Technologies — Python AI Developer

2018 – 2020 · Montreal, QC

- Built EEG emotion-classification models for ad engagement (Random Forest, SVM, TensorFlow) at ~90% accuracy, with a Grafana analytics dashboard.

PROJECTS

Freelance & independent work across health, fintech, gaming and developer tools, including:

- Crisis Watch (crisiswatch.ca) — live real-time geopolitical dashboard with GDELT, NASA and Yahoo Finance data pipelines (Next.js, Azure).
- Agentic AI tooling — Fast MVP Generator (a LangGraph agent that specs and builds apps) and SecureAgentOS (sandboxed OS for autonomous agents).
- Published mobile apps (App Store and Google Play) — RateMyFit (on-device ML), DeloBet, Call me Now, DeloLane, My Peace.

EDUCATION

M.A.Sc., Electrical & Electronics Engineering — Concordia University, Montreal, QC

2018 – 2020

PUBLICATIONS & AWARDS

- IEEE-published: "Smart Glove and Hand-Gesture-Based Control Interface for Multi-Rotor Aerial Vehicles" (single- and multi-subject studies). Applied research in physics-informed neural networks (PINNs) for sparse-data cardiovascular imaging.
- 2nd place, ABB Machine Learning Hackathon. Concordia International Tuition Award of Excellence.