

DANIEL MILAD

AI PRODUCT ENGINEER | APPLIED AI & FULL-STACK SYSTEMS

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PROFESSIONAL SUMMARY

AI Product Engineer and full-stack engineer building production-oriented AI products, agentic systems, RAG platforms, and knowledge infrastructure. Experienced across frontend, backend, retrieval, evaluation, cloud systems, and product delivery using Python, TypeScript, Next.js, React, and modern AI tooling. Former professional audio engineer with specialist domain expertise in music technology and creative workflows.

CORE TECHNICAL SKILLS

AI Engineering: RAG, AI agents, hybrid/vector retrieval, BM25, RRF, reranking, structured outputs, tool calling, LLM evaluation, knowledge systems, context engineering

Languages & Frameworks: Python 3.11+, TypeScript, JavaScript, React, Next.js, Node.js, Fastify, FastAPI, Pydantic v2, Rust/Tauri 2

Data & Infrastructure: MongoDB Atlas Vector Search, PostgreSQL, Redis/BullMQ, Supabase, Neo4j, AWS S3, GCP, Vercel, Convex, REST APIs, WebSockets, TCP/IPC

AI / Model Tooling: OpenAI SDK, OpenRouter, Voyage AI, Anthropic, PyYAML, RapidFuzz, pytest, Vitest, GitHub Actions

Domain: Ableton Live, music technology, audio engineering, speech/audio workflows, blockchain product infrastructure

SELECTED AI ENGINEERING

Kwinci — Agentic AI System for Ableton Live (formerly Aria)

Founder / AI Product Engineer | Python | Tauri/Rust | React/TypeScript | Ableton Live 12 | Evaluation | Recruiting beta cohort (~20-producer initial cohort)

- Architected a multi-layer AI production agent for Ableton Live 12 where the model never talks to the DAW: LLM output is compiled into a typed 90-action registry, validated, then executed through a custom control-surface bridge (~130 RPCs).
- Built the knowledge and execution stack behind that path: 2,400 authored YAML profiles across 222 genre hubs, retrieved into plans rather than pasted as recipes.
- Designed the eval/release loop: labeled goldsets and regression suites, GitHub Actions merge gates, ~4,200 Python tests and 169 frontend tests. Cut known-offline retrieval fallback from ~1.2 s to ~11 ms p50 by failing closed on a dead embedding provider instead of retrying it every turn.

Research RAG — AI Research & Knowledge Platform

Open beta | Next.js | Python/FastAPI | LangGraph | MongoDB Atlas | Voyage AI | AWS | Hugging Face | Tavily | OpenRouter | Redis

- Built a scientific-literature RAG platform combining PDF ingestion, hybrid BM25 + dense retrieval, Reciprocal Rank Fusion, Voyage reranking, and a LangGraph research agent grounded exclusively in the user's indexed library.
- Built a 148-question evaluation suite across a 125-paper, five-topic corpus with separate eval and holdout splits; achieved paper Recall@5 of 0.98 across 99 eval questions and 1.00 across 24 held-out questions.
- Measured RAGAS faithfulness at 0.90 / context recall at 0.95 on eval; held-out evaluation maintained 0.87 faithfulness / 0.98 context recall.
- Tested 25 deliberately unanswerable questions across eval and holdout sets; the agent correctly refused 25/25 and never fell through to web search.

PROFESSIONAL EXPERIENCE

Independent AI Product Engineer / Full-Stack Developer / Technical Consultant

Aug 2023 – Present | Remote

- Build and advise on AI-powered research, health, knowledge, and data products from product definition through full-stack architecture, implementation, and technical strategy.
- Current work with a non-profit organisation includes architecture for a privacy-sensitive research platform supporting multilingual text/voice data collection and planning future AI-assisted analysis over collected study data.

Selected concurrent client engagements:

Lead Full-Stack Developer — Aces.fun | Apr 2025 – Feb 2026, Collectibles Tokenization & Trading Platform on Base

- Served as the primary engineer responsible for the frontend and backend application, owning architecture, implementation, blockchain integrations, production debugging, and infrastructure for a Base-native tokenization and trading platform.
- Built a TypeScript monorepo with Next.js 15 / React 19, Fastify, WebSockets, PostgreSQL / Prisma, Convex, and deployments across Vercel and Railway.
- Developed wallet-authenticated trading and token-launch workflows using Privy, wagmi, viem, Solidity / Hardhat, Aerodrome liquidity infrastructure, and QuickNode / Base RPC services.
- Supported 5 token launches and 1,000+ token holders, with the platform reaching approximately \$7M peak market capitalization.

AI Product Engineer / Full-Stack Developer — Hyperbaric HQ | Sep 2023 – Feb 2025, Client Engagement

- Built a domain-specific research and knowledge platform for hyperbaric oxygen therapy, including the web product and structured research/content infrastructure.
- Developed an AI-assisted Airtable content pipeline used to process and manage ~100 articles and research papers across multiple health conditions, supporting research-led publishing and educational workflows.

Product Operations Director — Temple Technology / Taste Foundation | Aug 2023 – Dec 2024, Dubai, UAE – Remote

- Partnered directly with the CTO on deployment infrastructure and CI/CD pipelines for AI-centric products, gaining hands-on exposure to production AWS/GCP environments.
- Built and maintained internal-facing AI experimentation tooling (including ComfyUI-based workflows) that enabled a creative team to iterate directly with generative AI models in production.
- Contributed to product design, technical planning, and partner/outreach initiatives for AI-enabled experiences around artists and established IP.

EARLIER PRODUCT & DOMAIN EXPERIENCE

Project Founder & Project Manager — Pink Flamingo Social Club

Aug 2021 – Dec 2024 | Brisbane, Australia

- Founded and managed a cross-chain digital product with sold-out collections across multiple blockchain ecosystems; owned product direction, interface design, community execution, and technical coordination.

Blockchain Developer — INKPAY

Jun 2022 – Dec 2022 | On-site

- Designed and built Web3 and NFT infrastructure for a production technology product across frontend interfaces and blockchain integrations.

Audio Engineer / Studio Owner — Gasworks Recording Studio

Nov 2020 – Aug 2022 | Brisbane, Australia

- Owned and operated a professional recording studio delivering music recording/mixing, film/TV/animation/VR post-production, live-stream engineering, and podcast production.
- Developed deep professional expertise in audio systems and creative production workflows now applied directly to Kwinci and AI-powered audio products.

EDUCATION

Bachelor's Degree, Music Technology — Griffith University | 2017 – 2019 | GPA 6/7

Technical focus: studio and live recording systems, signal flow, audio hardware, sound design, mixing/mastering, and music production technology.