James David Thomason

SENIOR FULL-STACK MACHINE LEARNING ENGINEER

Charlotte, NC | Remote-first, async-first | (704) 406-7874 | hello@davidthomason.dev
davidthomason.dev | linkedin.com/in/dave-thomason | github.com/no-complect

Senior Full-Stack Machine Learning Engineer with 12+ years building software across AI, finance, healthcare and logistics. Builds deterministic, inspectable AI infrastructure: typed model judgments separated from application policy, explicit workflow routing and reproducible evaluation harnesses. Communicates through code, architecture specifications and evaluations.

AI: RAG (Retrieval-Augmented Generation), LLM Evaluations (Evals), Context Engineering, LangChain, LangGraph, Typed Decision Routing, System One Decision Models, State Machines, MCP, Pydantic.

Engineering: Python, TypeScript, Go, React, Next.js, FastAPI, GraphQL, PostgreSQL/pgvector, Redis, Docker, Kubernetes, Terraform, AWS, Azure, Google Cloud, CI/CD.

SELECTED SYSTEMS & ARTIFACTS

Jev Harness: Choice/Score/Noul JSON compiler | jev-harness.dev
Browser-local GraphQL mutations/subscriptions; server-side schema validation, revisions; judgment/policy separation.

Evidence Workbench: bounded LangChain/LangGraph research | davidthomason.dev/workbench/ | GitHub
LLM harness: hybrid/vector/keyword retrieval; source-pinned citations, gap disclosure; reproducible eval benchmarks.

Geometric Langlands Atlas | glc-atlas.xyz | TypeScript, Next.js, Three.js, KaTeX
Scientific 3D visualization: exact rational arithmetic separated from rendering; bundles, curves and monodromy.

PROFESSIONAL EXPERIENCE

Moody's Ratings | Senior Machine Learning Engineer (Division Restructuring) | Aug 2026 - Oct 2026

- Built an LLM harness for shared project knowledge, configurable agents and engineering/product workflows.
- Implemented finite-state-machine routing across conditional, LLM, agent, task and planning nodes; composed nested workflows.
- Designed S3-backed knowledge tables with group permissions and per-node prompts/context; connected MCP, LiteLLM and Bifrost across AWS, Azure and Google Cloud.

Stack: Pydantic, Angular, FastAPI, PostgreSQL, MCP, LiteLLM, Bifrost, Amazon S3.

Wonder Cave | Senior Full-Stack Software Engineer | Feb 2025 - Jun 2026

- Built agent workflows integrating Linear, Slack, Notion, Sentry and internal APIs for engineering and project management.
- Created codebase maps and documentation pipelines; refactored applications, tuned PostgreSQL queries and improved Redis caching with principal engineers.

Stack: TypeScript, Node.js, Express, React, PostgreSQL, Redis, MongoDB, AWS, Terraform, Docker.

Mentra | Senior Full-Stack Software Engineer | May 2023 - Dec 2024

- Built and evaluated talent-matching models to align candidate profiles with job requirements for a neurodiverse hiring platform.
- Prototyped resume ingestion and conversational onboarding to extract and structure candidate information.
- Partnered directly with the CTO on application/cloud architecture; modernized Next.js/React delivery and added Sentry monitoring and incident notifications.

Stack: TypeScript, Python, Next.js, React, GraphQL, PostgreSQL, Redis, Azure, Vercel, Render, GitHub Actions.

Endava North America | Senior Software Engineer | Oct 2019 - May 2023

- Built the proof of concept that helped secure a two-year, $10M warehouse automation engagement; provided technical direction across six workstreams involving 60+ engineers.
- Engineered IoT tracking and Android wearables, cutting average staging-lane waits from hours to under 60 minutes.
- Delivered real-time device/beacon positioning, voice-enabled Android tools and task assignment for employees, products and forklifts.
- Helped establish the North American Go practice through microservice guidance and mentoring on idiomatic Go, API orchestration and database access.
- Modernized enterprise services with Docker, Kubernetes and serverless architectures.

Stack: Go, TypeScript, JavaScript, Spring, .NET Core, Nest.js, Next.js, React Native, Android, OpenCV, gRPC, Flowable.

Endava North America | Software Engineer | Sep 2016 - Oct 2019

- Delivered high-availability digital banking features across C#/Java services and React/Angular applications; built across frontend, backend and infrastructure in finance, healthcare and logistics.
- Advanced to Senior Software Engineer through technical initiative and delivery across unfamiliar platforms.

Stack: C#, Java, React, Angular, Docker, Kubernetes, GitHub Actions, Jenkins, CircleCI.

PROFESSIONAL DEVELOPMENT

Supervised Machine Learning: Regression and Classification

DeepLearning.AI and Stanford Online via Coursera | May 2026

EARLIER EXPERIENCE | AUTOMATED TEST HARNESSES

AvidXchange | Lead SDET | Oct 2015 - Sep 2016: UI/unit/API test harnesses; company-wide test patterns.
Method | SDET | Apr 2014 - Oct 2015: Selenium harnesses, JMeter, CI/CD checks and engineer mentoring.