Ken King

AI Engineer | Generative AI & Agents on AWS Bedrock | Python, TypeScript

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AI engineer who designs and ships production generative AI on AWS. Worked on Amazon Bedrock itself at AWS (product surfaces, Agent Evaluations, on-call), then built and deployed a Bedrock-based agentic clinical platform end to end for a 3,000-patient family medicine clinic while working directly with its clinicians to scope, build and iterate on use cases.

RELEVANT EXPERIENCE

Founding Engineer — MASLOW Health · *Healthcare AI platform* Nov 2025 – Present

- **Agentic workflows on Bedrock:** Architected and shipped agent workflows on Amazon Bedrock, Step Functions, EventBridge and Lambda (planning, tool calls, structured validation, human-in-the-loop review) with idempotent retries and recovery.
- **Guardrails & security:** Built controls for regulated health data: role-based access, multi-tenant clinic isolation, audit logs, encrypted storage, and PHI-free event payloads; chose Bedrock for its HIPAA BAA.
- **Agent platform & RAG:** Built a platform for cloud and edge agents with Postgres/pgvector memory and retrieval, a custom MCP server, tool and skill execution, approval gates and cost-aware model routing.
- **Infrastructure as code:** Defined infrastructure in Amplify Gen 2 / CDK with CI quality gates in GitHub Actions, and observability through CloudWatch alarms and end-to-end workflow health alerts.
- **Client delivery:** Worked directly with clinicians and clinic staff to scope use cases, build MVPs and iterate on prompts and flows, taking the platform to production as the sole full-time engineer managing contractors and interns.

Amazon Web Services · *Santa Clara, CA*

Software Development Engineer — Amazon Bedrock & SageMaker Jul 2024 – Nov 2025

- **Agent evaluation:** Built Agent Evaluations capabilities for Amazon Bedrock (benchmarks, metrics dashboards, trace analysis) to evaluate multi-step agents against user-defined metrics, deployed to internal endpoints.
- **Bedrock product surfaces:** Shipped customer-facing surfaces (Flows, Prompt Optimization, Chat Playground) with PMs, UX and backend teams; led the frontend deployment of Intelligent Prompt Routing for re:Invent 2024.
- **Release engineering:** Cut my team's deployment lead time from 2+ weeks to hours by decoupling our console surfaces from a release pipeline shared by 10+ teams, across 12+ regions and GovCloud with gated, staged rollouts.
- **Production on-call:** Triaged 50+ Sev2 incidents in one rotation for Bedrock Flows and Prompt Optimization, using alarms, canaries, CloudWatch Logs Insights and service telemetry to isolate failures.

Software Development Engineer Intern (2×) — SageMaker Ground Truth Plus Summers 2022 & 2023

- **LLM evaluation & annotation tooling:** Built an end-to-end LLM evaluation prototype on SageMaker with hosted inference, automated scoring, benchmarks and expert review (2023), and production annotation tooling for Ground Truth Plus (2022).

Graduate Research Assistant — Commonwealth Cyber Initiative · *Virginia Tech / VMI* Jan 2022 – Jul 2024

- **Voice AI & LLM research:** Built a GPT-3 XR voice assistant in Unity/C# and SafeSpace, an agentic dementia-care assistant with local speech inference in Python (first author, HCII 2024); co-authored 5 peer-reviewed papers and 1 preprint.

Lead Engineer — Vector Rideshare Feb 2020 – Sep 2021

- **Technical leadership:** Promoted from intern to technical lead; delivered five consumer-facing products (React/TypeScript, Node.js, GraphQL, MongoDB), led a 7-intern team, and wrote its onboarding guide.

TECHNICAL SKILLS

AWS GenAI: Amazon Bedrock (models, agents, evaluations), Step Functions, Lambda, EventBridge, S3, DynamoDB, CloudWatch, CDK
Agents & RAG: Agentic workflows, tool calling, MCP, RAG, pgvector, guardrails, human-in-the-loop, evals, LLM-as-judge, LangChain
Languages: Python (FastAPI, Django), TypeScript/JavaScript, Java, Rust, C#, SQL; React, Next.js, Node.js/Express
Delivery: GitHub Actions CI/CD, feature flags, staged rollouts, observability, on-call; GCP, Docker

EDUCATION

M.S. Computer Science, Virginia Tech Jul 2024

GPA 3.95 · Graduate Teaching Assistant · Thesis: transformer models for clinical NLP, with benchmark dataset and evaluation pipeline

B.S. Computer Science, Virginia Tech May 2021

GPA 3.71 · Magna Cum Laude · NCAA D1 football · completed in 3 years