

KARTHIK SUBRAMANIAN

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SUMMARY

Hands-on engineering manager: 14+ years building software, 4 years leading engineering teams — currently a cross-functional team of 5, previously 10 engineers across two data-platform teams. Last fiscal year my team shipped an in-house GenAI portfolio (~\$280K/yr projected savings) and a standards-correlation service that returned \$135K against a \$0 projection. I still design architectures and ship production code every week. Flagship items below link to full write-ups at karthiks3000.github.io.

SKILLS

AI/ML engineering: AWS Bedrock, generative AI (GenAI), large language models (LLMs), retrieval-augmented generation (RAG), agentic workflows, LLM evaluation (evals), prompt engineering, knowledge graphs (Amazon Neptune)

Data & streaming: Amazon Kinesis, Apache Flink, Snowflake, DynamoDB, PostgreSQL, MySQL, Elasticsearch

Cloud & serverless (AWS): Lambda, Step Functions, API Gateway, SAM, CloudFormation, CDK, infrastructure cost optimization

Languages & frameworks: Java (Spring Boot), Python (Django), TypeScript/JavaScript (React), SQL

Leadership: hiring & interview design, mentoring & promotions, technical roadmapping, cross-functional delivery, agile

EXPERIENCE

Scholastic Inc. — Senior Software Engineering Manager

Feb 2025 – Present · Remote (Waterloo, ON)

Player-coach for Business Acceleration (BAM), the education division's AI & platform engineering team — 5 direct reports (3 SWE, 1 QE, 1 DevOps).

- Founded the organization's AI adoption program: a transparent idea-to-PoC pipeline that turned 29 proposals into 16 PoCs, 10 now in production or active development.
- Led delivery of an in-house GenAI document portfolio (alt text, metadata enrichment, translation) on Bedrock, Lambda, and Step Functions — ~\$280K/yr projected savings across two business units.
- Architected the State Standards Correlation Service (Neptune, Step Functions, Bedrock): \$150K in projected losses avoided, \$135K returned against a \$0 projection.
- Grew developer AI tooling from zero to ~\$10K/month sustained adoption; founded the AI Engineering Champions program (one champion per engineering team) and serve on the enterprise AI Center of Excellence.
- Architecture Support Group member; presented "Scholastic Resource Agent" at the 2025 STS Tech Summit; redesigned engineering interviews and developed a direct report to promotion.

Scholastic Inc. — Principal Software Engineer

Oct 2022 – Feb 2025 · Remote (Waterloo, ON)

Domain lead for two teams — Data & Dashboards and Assessments & Personalization, 10 engineers — from 2023 to 2025.

- Spearheaded data engineering for a greenfield literacy platform: automated product-data onboarding (Kinesis, Lambda, Caliper standard), cutting integration time 80% (months to weeks).
- Built the division's first GenAI application (knowledge-graph tooling for ontologists on Bedrock and Neptune); shipped a GenAI quiz generator saving \$150K/yr in vendor spend.
- Drove \$140K/yr in realized AWS savings via rightsizing; led org-wide LaunchDarkly adoption for A/B testing and low-risk releases.

Renaissance Learning — Technical Lead

Mar 2022 – Oct 2022 · Remote

- Directed the on-time, under-budget migration of a single-tenant data warehouse to multi-tenant Snowflake — \$360K/yr in realized recurring savings.
- First formal leadership role: led a cross-functional K-12 analytics team while remaining lead contributor on pipeline design.

Scholastic Inc. — Senior Software Engineer (Consultant)

Apr 2018 – Mar 2022 · New York & Toronto (returned full-time in 2022 as Principal Software Engineer)

- Built education data services and APIs on AWS serving millions of students.
- Implemented K-Means student grouping for teachers, supporting differentiated instruction.

Viacom Inc. — Technical Lead (Consultant); Software Engineer

Jun 2011 – Apr 2018 · Mumbai & New York

- Progressed from software engineer (Mumbai) to technical lead (New York): content-management systems and high-traffic sites for major entertainment brands, leading distributed teams across two continents.

SELECTED ENGINEERING & SPEAKING

- Solo-executed a four-repository consolidation with Claude Code: 15 days, 580 passing tests, zero QA-reported bugs.
- Built an AI chess mentor that won an Amazon Nova AI Hackathon prize (Stockfish + Nova); other builds include a real-time AI tutor and a multiplayer trivia game on serverless AWS.
- AWS Community Builder (2025); 20 posts on AI systems engineering at dev.to/karthiks3000.

EDUCATION & CERTIFICATION

- B.E., Information Technology — University of Mumbai, 2011
- AWS Certified Cloud Practitioner, 2022