

HARIPRASATH PERIYASAMY

Principal Engineer • Product & Web Engineering • Applied AI

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Boston, MA, USA • Relocating to London, UK

PROFESSIONAL SUMMARY

Product engineer with 10+ years of full-stack, frontend-heavy work, most of it shipping 0-to-1 products at AWS and Shopify. Launched Amazon Ads' Ads Data Manager and made it 2.6x faster at peak, built the CloudWatch Logs Live Tail front end streaming 10,000+ events/second, and led Shopify's Ads 3P team through a dynamic creative system serving ads in under 150 ms. Now Principal Engineer at Autodesk, where I proposed a human-in-the-loop AI agent and had it in production through enterprise AI governance within five months of joining, and wrote the UI readiness framework 16 engineers follow.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript (ES6+), SQL, HTML5, CSS3

Product & Web: React, Next.js, Redux, React Query, Node.js, GraphQL, REST, WebSockets, Web Workers, Server-Driven UI, Design Systems, Accessibility (WCAG), Mobile & Touch Web

Performance & Scale: Web Vitals, Query Batching & Multi-Level Caching, Streaming Data UIs, Memory Profiling (Chrome DevTools), Bundle Optimization, Telemetry & SLIs, Distributed Tracing

Applied AI: Agent Orchestration (LangGraph), Amazon Bedrock, Model Context Protocol (MCP), Context Engineering, RAG, Knowledge Graphs (Neo4j), LLM Evaluation, Human-in-the-Loop Design, AI Risk & Security Review, Agentic Coding Tools (Claude Code and similar)

Cloud & Quality: AWS (CDK, Lambda, S3, CloudWatch; multi-account, multi-region), Docker, Kubernetes, CI/CD, Jest, Cypress, Playwright, React Testing Library, A/B Experimentation, Staged Rollouts

PROFESSIONAL EXPERIENCE

Principal Engineer | **Autodesk** | Remote (May 2026 – Present)

Post-Purchase – Autodesk Account Subscriptions & Billing

- Saw on-call engineers losing incident time hunting by hand for the failing layer; **proposed an AI agent and had it in production within five months of joining** (TypeScript, LangGraph, Amazon Bedrock, MCP, Neo4j), cutting time to identify the failing layer and its owning team **from ~30 to ~5 minutes** and saving **~25 on-call engineer-hours a month**.
- Designed it for responsible use: read-only access through allow-listed integrations, no automatic remediation, an engineer reviews every action, and an evaluation harness checks answers are grounded (**~90% correct on first answer**); took it through enterprise AI governance, risk and security review to **AWS production with 1,200+ automated tests**.
- Turned my path through AI governance into **the playbook the next team uses to ship governed AI** (approval in ~4 weeks instead of ~3 months), and started the **AI adoption forum that sets AI priorities for three teams**, turning 12+ demos into an owned backlog; the teams now share the 10-server MCP tool stack and agent skills I standardized.
- Lead engineer for Autodesk's personalized, AI-driven subscriptions and billing web application, used by **thousands of customers daily**; led front-end delivery of the flagship subscriptions redesign **across a 13-person team** with product and design, cutting billing support tickets ~20%.
- Wrote the **UI readiness framework 16 engineers follow** as their quality bar, cutting UI defects reaching production ~30%, and proposed distributed tracing across services; built shared design-system components now **reused by three sister teams**, so copy and visual changes ship in hours instead of ~1 week.

Senior Engineer | **Shopify** | Remote (Aug 2025 – May 2026)

Ads 3P – Real-Time Bidding, Creatives & Merchant Marketing

- **Led the Ads 3P team (8 engineers)** across real-time bidding, merchant dashboards and email/SMS automations, setting its architecture direction and mentoring engineers on code quality and delivery velocity.
- Designed and shipped a dynamic creative optimization system end to end, from UI rendering to the data layer, assembling and serving ad creatives in **under 150 ms** and lifting click-through ~12%.
- **Represented Shopify in architecture reviews with Microsoft's and Instacart's engineering teams** on real-time bidding, leading to ad creatives that load ~40% faster.
- Built high-integrity event tracking across web and native clients, delivering reliable real-time conversion signals to Meta Pixel and Google Tag Manager and **recovering ~15% of previously lost conversions** for merchants.

- Carried on-call for the team's services, driving security hardening and system-health fixes that cut pages ~30%; ran structured code reviews and knowledge-sharing sessions.

Front-End Engineer | Amazon Web Services (AWS) | Boston, MA (Jun 2022 – Aug 2025)

Amazon Ads – Full-Stack Digital Experiences

- Launched [Ads Data Manager 0-to-1](#), an enterprise advertiser data onboarding and activation application (React, TypeScript, GraphQL) adopted by 500+ advertisers, with chunked-streaming uploads for files up to 5 GB.
- Architected a GraphQL Backend-for-Frontend layer stitching multiple microservices into one client contract; query batching and multi-level caching (client, CDN) **cut backend calls 60% and average response time from 850 ms to 320 ms** at peak traffic.
- Designed the **server-driven UI architecture Ads Data Manager is built on**, delivering UI configuration from the backend so the team ships interface changes and A/B experiments **without client releases**, from ~2 weeks to same-day.
- Gave the team secure self-service deployments across multiple AWS accounts and regions with AWS CDK, moving releases from weekly to daily.

AWS CloudWatch – Real-Time Monitoring & Observability

- Built the [CloudWatch Logs Live Tail](#) front end on WebSockets and Web Workers, **streaming 10,000+ log events/second** while keeping the UI responsive, so customers debug in real time.
- Built CloudWatch's [ML-driven log anomaly detection dashboards](#), turning raw model output into interactive visualizations that **let non-technical users act on anomalies**, cutting time to spot one from hours to minutes.
- Instrumented client-side telemetry (latency, API errors, behavioral metrics) and used it to find and fix ~20 performance regressions and guide product decisions.

Senior Frontend Engineer | Sumo Logic | Boston, MA (Sep 2021 – May 2022)

- Cut data-analytics dashboard load time 45% (tree shaking, lazy loading, SLI-based monitoring) and memory use 25% by fixing leaks in large data-visualization components; established the Atomic Design-based design system the product suite is built on, speeding new dashboard builds ~30%.

R&D Software Engineer | Dassault Systèmes | Boston, MA (Jan 2019 – Aug 2021)

- Owned the Web UI template library for xApps (browser-based CAD applications) that every feature team company-wide (20+ teams) built on, with mobile and touch support and load/runtime optimizations (Web Workers, caching, compression).

Programmer Analyst | Cognizant Technology Solutions | India (Jul 2014 – Nov 2016)

- Built accessible, cross-browser interfaces for digital banking platforms including Lloyds Bank Commercial Banking Online, and a test-automation framework that cut manual testing 25%.

EDUCATION & COMMUNITY

Master of Science in Informatics, Northeastern University, Boston, MA (Jan 2017 – Dec 2018)

ADPList Mentor – Recognized as a Top 10 UX Engineering Mentor