

HARIPRASATH PERIYASAMY

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PROFESSIONAL SUMMARY

Principal Engineer with 10+ years of experience building high-performance, customer-centric web applications across enterprise SaaS, cloud observability, ad tech, and banking. Deep full-stack expertise in React, TypeScript, Node.js, GraphQL, and AWS, now focused on applied AI: governed, human-in-the-loop agents, MCP-based tooling, and AI-native engineering workflows. Proven track record of leading cross-functional delivery, raising engineering standards across teams, and mentoring engineers.

TECHNICAL SKILLS

Frontend: React 18+, TypeScript, JavaScript (ES6+), Next.js, HTML5, CSS3, Tailwind, SCSS, Redux, React Query, RxJS, Storybook, Design Systems, Accessibility (ARIA, WCAG), Web Vitals

AI & Agentic Systems: LangGraph, Amazon Bedrock, Model Context Protocol (MCP), AG-UI, A2UI, A2A, Agentic Workflows, RAG, Knowledge Graphs (Neo4j), LLM Evaluation, Human-in-the-Loop, Anthropic & OpenAI APIs

Backend & APIs: Node.js, Python, FastAPI, GraphQL, REST, Java, Spring Boot, SQL, Kafka, WebSockets

Cloud, DevOps & Observability: AWS (CDK, CloudWatch, Lambda, S3, EC2), Docker, Kubernetes, CI/CD (GitHub Actions, GitLab), Webpack, Infrastructure as Code, Splunk, Dynatrace

Testing & Quality: Jest, Cypress, Playwright, React Testing Library, Chrome DevTools Profiling

Leadership: Technical Strategy, Engineering Standards, Squad Leadership, Technical Mentoring, Agile/Scrum, Code Reviews, Cross-Team Collaboration, Stakeholder Communication, On-Call Ownership

PROFESSIONAL EXPERIENCE

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

Post-Purchase – Autodesk Account Subscriptions & Billing

- As lead frontend engineer, own Autodesk's personalized, AI-driven billing website, used by **thousands of customers daily**, and led frontend delivery of the flagship Account Subscriptions 3.0 redesign.
- Originated a human-supervised AI on-call triage assistant that finds the failing layer and its owner, and took it through enterprise AI governance, security review, and AWS deployment with **1,200+ automated tests**.
- Documented the enterprise approval path for AI services so the next service owner can repeat it, lowering the barrier to shipping governed AI at Autodesk.
- Launched an AI adoption forum across **three teams**, turning demos into a prioritized, owned backlog, and standardized a 10-server MCP tool stack and reusable agent skills.
- Authored engineering standards and architecture proposals, including a UI readiness framework and a distributed tracing initiative, to raise quality across teams.
- Strengthened the shared design system so product copy and visual changes ship without a package release, and built components for reuse by sister teams.

Lead Full-Stack Engineer | **Shopify** | Remote (Aug 2025 – May 2026)

- Led engineering for the Ads 3P team (real-time bidding, merchant dashboards, email/SMS automations), combining hands-on leadership with mentoring on frontend architecture, code quality, and delivery velocity.
- Built a high-integrity event tracking solution across Web and Native platforms, ensuring reliable real-time signals for Meta Pixel and Google Tag Manager to improve merchant conversion tracking accuracy.
- Developed a Dynamic Creative Optimization (DCO) system spanning frontend and backend layers, serving ad creatives within **150ms** response time **with full-stack ownership from UI rendering to data layer integration**.
- Contributed to the on-call rotation (weekly quarterly shifts), driving system health, security hardening, and engineering culture through structured code reviews and knowledge-sharing sessions.

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

Amazon Ads – Full-Stack Digital Experiences

- Designed and shipped [Ads Data Manager](#), a cloud-based data onboarding and activation SPA using React, TypeScript, and GraphQL, delivering production-ready digital workflows for enterprise advertisers.
- Implemented Backend-for-Frontend (BFF) middleware using GraphQL to stitch multiple microservice APIs, optimizing client-server communication and streamlining complex advertiser data flows.
- Achieved a 60% reduction in backend API calls through GraphQL query batching and multi-level caching (client, CDN), reducing average response time from **850ms to 320ms under peak traffic**.
- Developed a Server-Driven UI architecture that delivered UI configurations from the backend, enabling real-time interface updates without client deployments and supporting A/B experimentation at scale.
- Built a stream-based data ingestion interface enabling advertisers to upload and process large datasets via chunked streaming, improving performance and memory efficiency for high-volume workflows.
- Led **infrastructure provisioning with AWS CDK** for secure self-service deployments across multiple accounts and regions, reducing deployment complexity and accelerating release cycles.

AWS CloudWatch – Real-Time Monitoring & Observability

- Engineered [AI-powered anomaly detection dashboards](#) that transformed complex ML outputs into intuitive visualizations and interactive tables, enabling non-technical users to identify log pattern anomalies.
- Built a high-performance [CloudWatch LiveTail](#) system using WebSocket architecture and Web Workers, delivering real-time log streaming at 10,000+ events/second while maintaining a responsive UI.
- Implemented an extensive telemetry system capturing client-side latency, API errors, and behavioral metrics to enable deep performance analysis and data-driven product decisions.

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

- Led development of high-performance data analytics dashboards with a focus on rapid prototyping, iterative delivery, and cross-functional collaboration with product and design stakeholders. ([Demo](#))
- Detected and resolved JavaScript memory leaks in large-scale data visualization components using Chrome DevTools, reducing memory consumption by 25%.
- Established a comprehensive design system using Atomic Design principles, enabling faster prototyping and consistent user experiences across the product suite.
- Improved dashboard load times by 45% through tree shaking, lazy loading, and performance monitoring with well-defined SLIs.

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

- Designed, developed, and maintained a Web UI Template library for xApps (online CAD applications), creating reusable components consumed by all feature teams company-wide. ([Demo](#))
- Ensured full cross-platform compatibility for mobile and touch device workflows, delivering seamless user experiences across devices.
- Optimized network performance through resource hinting, tree shaking, compression, and caching; enhanced runtime efficiency with Web Workers and LocalStorage strategies.

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

- Enhanced digital banking payment platforms, including [Lloyds Bank Commercial Banking Online](#), with responsive, cross-browser, and accessibility-compliant interfaces for major financial services clients.
- Designed and implemented a test automation framework across Chrome and Firefox, reducing manual testing efforts by 25% and streamlining QA workflows.

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