

Arun Joshi

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SUMMARY

Senior software engineer with 6+ years of experience building and modernizing production applications across web, mobile, backend, cloud, and AI-enabled systems. Strong in system architecture, product engineering, performance, APIs, DevOps, and end-to-end delivery, with hands-on experience building RAG systems, AI agents, retrieval workflows, and applied AI products.

SKILLS

Frontend: TypeScript, JavaScript, Next.js, React, React Native

Backend: C#.NET, Python, FastAPI, REST APIs, SQL Server, PostgreSQL

Cloud & Delivery: Azure, AWS, Docker, Azure DevOps, CI/CD, Git

Systems: System Design, API Design, Authentication, Caching, Queues, Background Jobs

AI: RAG, Agents, Tool Calling, Vector Search, OpenAI/Gemini APIs, AI SDK

EXPERIENCE

Applied Dynamic Solutions | Software Engineer / Senior Software Engineer

May 2020 - Present | Remote

- Built and modernized web, mobile, and AI-enabled products for 15+ clients using Next.js, React, React Native, C#.NET, Python, SQL, and Azure.
- Built production AI systems including RAG assistants, retrieval pipelines, tool-calling workflows, grounded responses, product API integrations, and live-agent handoff.
- Architected matching workflows using 15+ parameters, improving queuing and execution behavior for complex user flows.
- Developed client platforms serving up to 100K+ users, while diagnosing frontend, API, and database performance bottlenecks.
- Established shared React foundations, coding standards, request/response patterns, Git workflows, and CI/CD practices used across 20+ projects.
- Managed Azure infrastructure and deployment environments, including access controls, network security, application configuration, and production releases.

TheDrive.ai | Co-Founder, Product & Engineering

Mar 2023 - 2025 | Remote

- Co-founded an AI-powered file workspace for natural-language search, Q&A, organization, and file actions, growing to 1,000 monthly active users.
- Built a TipTap-based collaborative file editor with multi-user editing, socket-driven updates, autosave, shared document state, and real-time synchronization.
- Designed event-triggered reindexing pipelines to keep edited content synchronized with search and downstream AI retrieval workflows.
- Built product workflows across file organization, sharing, permissions, notifications, messaging, and AI-assisted actions.

Agile Academy | Software Engineer, Project-Based

2019 - 2021

- Built live and self-paced video learning, discussion features, and CDN-backed media delivery with caching for responsive course experiences.
- Implemented queue workers, background jobs, and service-separated processing for asynchronous and long-running workloads.

SELECTED PROJECTS

Lattice | AI Knowledge & Agent Platform

- Built a multi-tenant AI knowledge platform with FastAPI, PostgreSQL/pgvector, hybrid retrieval, reranking, citations, and organization-scoped authorization.
- Designed asynchronous ingestion and reindexing with Celery/Redis plus bounded agent execution with retries, timeouts, tool controls, and streaming.
- Built retrieval and response evaluation workflows covering Precision@K, Recall@K, groundedness, citation quality, tool behavior, and LLM-based grading.

Emergency Dispatch Classification | UT Austin

- Fine-tuned DeBERTa-v3-base for multitask 911 transcript classification on a 6,030-record real/synthetic dataset, achieving 0.8680 dispatch positive-label macro F1.
- Compared model variants using macro/micro F1, validation loss, confusion matrices, and error analysis to diagnose class imbalance and overfitting.

EDUCATION

The University of Texas at Austin | M.S. Artificial Intelligence | Expected Dec 2026

Caldwell University | B.S. Computer Information Systems | Minor in Mathematics and Business Administration | 2020