

OMAR RAHMOUN

Senior Software Engineer · AI & Agentic Systems · Distributed Systems · Full-Stack

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SUMMARY

Senior Software Engineer with 6+ years of professional experience in distributed systems and a track record of building full-scale products end-to-end. At CCC Intelligent Solutions, delivered a platform generating \$10M annual revenue, led a 30-app zero-downtime PostgreSQL migration, and pioneered LLM/GenAI adoption across the organization. Independently built Omizi WMS — a warehouse/logistics platform with a dispatcher-led delivery execution model, event-driven Kafka + SSE backend, cross-platform mobile apps, and Kubernetes cloud infrastructure. Also designed and runs a Hermes-based multi-agent operating system with persistent memory, voice/STT workflows, skill orchestration, and autonomous task execution. Seeking a Senior/Lead role at the intersection of AI engineering and real product delivery.

SKILLS

AI & Agentic Systems: Multi-Agent Orchestration, Agentic Design Patterns, LLM Integration, Prompt Engineering, RAG, Tool Calling, Persistent Memory (Honcho), AWS Bedrock, Strands SDK, Agent Core, Claude / Anthropic SDK, Hermes LLM, Generative AI

Architecture & Design: Lean Onion / Clean Architecture, Domain-Driven Design, Event-Driven Architecture, Transactional Outbox, Distributed Systems, Microservices, SSE, API Design, System Design

Backend: Java, Python, TypeScript/JavaScript, Spring Boot, FastAPI, SQLAlchemy, Apache Kafka, REST, PostgreSQL, Query Optimization, Database Migration

Frontend & Mobile: Next.js 14, React Native / Expo, Vue.js, Vercel, Responsive UI

Cloud & Infrastructure: AWS (EC2, ECS/EKS, Lambda, RDS, Bedrock), Azure (AKS, Event Hubs), Docker, Kubernetes, MicroK8s, NGINX, Clerk JWT, CI/CD (GitHub Actions, Jenkins), DNS/TLS/Ingress

Observability: Grafana, AWS CloudWatch, Structured Logging, Health Monitoring, Load Testing, Performance Tuning

Leadership: Technical Leadership, Cross-Functional Teams, Agile/Scrum, Mentorship, Code Review, Epic Decomposition, QA Engineering

PROFESSIONAL EXPERIENCE

Senior Software Engineer | *CCC Intelligent Solutions*

Chicago, IL · Jun 2023 – Present

- Designed and delivered a platform product generating \$10M in annual revenue, serving as the foundational architecture for multiple derivative products — owned the distributed system end-to-end from requirements through production.
- Pioneered LLM/GenAI adoption across the engineering organization: built training materials, integration patterns for AWS Bedrock and Generative AI tooling, accelerating UI development velocity by 25%.
- Led team of 5 engineers to ship a greenfield MVP in 2 months by compressing sprint cycles to 1 week, maintaining quality through rigorous integration testing and rapid feedback loops.
- Led zero-downtime PostgreSQL migration across 30 team-owned microservices: established standards, authored documentation, coordinated cross-functional leads, executed with full load and integration test coverage.
- Architected and optimized Kafka-based messaging infrastructure handling high-volume transaction processing across 15+ consumers; resolved critical production backlogs by reconfiguring partitions and tuning consumer parameters.

- Collaborated directly with product leadership, account managers, and customers to align technical solutions with business goals and drive continuous product improvement.

Level 2 Software Engineer | *CCC Information Services*

Chicago, IL · Feb 2022 – Jun 2023

- Delivered three unplanned, high-impact products within the first year — each became a key revenue driver and integral integration microservice across the platform.
- Enhanced performance of a legacy system achieving a 12% efficiency improvement, enabling its repurposing for new product applications.
- Mentored associate engineers, conducted code reviews, and cultivated a culture of technical rigor and customer-focused engineering.

Associate Software Engineer | *CCC Information Services*

Chicago, IL · Aug 2020 – Mar 2022

- Built full-stack applications using Spring Boot (RESTful APIs) and Vue.js; led cloud migration of legacy WebLogic apps to Docker/Kubernetes.
- Partnered with stakeholders to translate product requirements into deployed solutions; provided on-call NOC support resolving front-end and back-end incidents.

INDEPENDENT PROJECTS

Omizi WMS — Warehouse & Logistics Platform · *FastAPI · PostgreSQL · Next.js 14 · React Native/Expo · Kafka · Kubernetes/AKS · Azure · Vercel · Docker · NGINX*

Founder-built warehouse management system spanning backend microservices, an internal ops portal, and mobile apps for warehouse, sales, and driver workflows. Designed a dispatcher-led delivery execution model with clear domain ownership boundaries (sales, dispatcher, stock, external) and an event-driven backend architecture using transactional outbox + Kafka for domain events, SSE for realtime tenant-safe operational updates, and REST for commands/queries. Built and deployed to Kubernetes (AKS) with NGINX ingress, Let's Encrypt TLS, CI/CD via GitHub Actions, Vercel for the portal frontend, and Clerk JWT authentication. Decomposed an oversized dispatcher epic into implementable backend, portal, mobile, and infrastructure workstreams — driver/vehicle management, trip dispatch, loading manifests, route sequencing, proof of delivery, and exception handling.

Hermes Agent Operating System · *Hermes LLM · Claude · Honcho · faster-whisper · Telegram · Kanban orchestration*

Designed and runs a multi-agent operating system for autonomous project execution. Built on Hermes with a layered memory architecture: persistent in-agent memory, Honcho long-term context recall, and session history search. Expanded the agent skill ecosystem across planning, TDD, systematic debugging, documentation engineering, subagent-driven development, and architecture documentation. Wired Kanban-based worker orchestration with auto-approval of technical decisions and escalation only for business-judgment calls. Integrated voice/STT workflows via faster-whisper and Telegram gateway for mobile operation. Runs cron/watchdog automation to monitor system health and maintain execution continuity.

Multi-Agent Orchestration Research (Claude + Hermes) · *Claude Agent SDK · MCP · Agentic Design Patterns · Lean Onion Architecture*

Actively building and experimenting with multi-agent systems using Claude, Claude Code, and Hermes LLM. Applies agentic design patterns — task decomposition, tool calling, memory management, agent coordination — structured with lean onion / clean architecture for modularity and testability. Practitioner of the Claude Agent SDK and Model Context Protocol (MCP) for composable multi-tool agent systems.

EDUCATION

B.S. Computer Science · Northeastern Illinois University

Chicago, IL · 2020 · GPA 3.8 · Honors