Roy Andreson

Plano, Texas | [GitHub](#) | [Portfolio](#) | [Gmail](#)

Senior AI/ML & Full-Stack Architect | Enterprise SaaS | LLM & RAG Systems | Cloud-Native Platforms

Full-Stack Software Engineer evolving into AI/ML Engineer with years of experience building scalable ERP, e-commerce, and SaaS platforms—specializing in modern web architectures, cloud deployment, and production-grade AI systems including LLM, RAG, and computer vision solutions.

Tech Skills

Frontend: Next.js, React.js, TypeScript, SSR/SSG, Performance Optimization
Backend: Node.js, Express.js, Scalable RESTful APIs, Service-Oriented Architecture
Database: PostgreSQL, Prisma ORM, Data Modeling & Indexing
Cloud & DevOps: AWS, Docker, CI/CD, Infrastructure Deployment
Security: Authentication & Authorization (JWT, OAuth), IAM, Secure System Design

Experience

Descartes | Waterloo, Ontario, Canada
Senior AI/ML Engineer   May 2023 - Dec 2025
Scope: Enterprise SaaS, AI integration, ERP modernization
- Lead architecture for distributed SaaS platform supporting multi-department ERP workflows (finance, HR, operations)
- Designed modular microservices using Node.js, Go, and .NET
- Built frontend platforms using Next.js, Vue (Nuxt), React, and Astro
- Implemented headless CMS architecture with Sanity, Strapi, and Prismic
- Designed AI-powered enterprise assistant using LLM + RAG pipeline
- Built document ingestion + embedding system with vector search
- Fine-tuned domain-specific language models for internal automation
- Developed warehouse Object Detection System (YOLOv8, PyTorch) improving inventory accuracy
- Deployed ML services with FastAPI + Docker + Kubernetes
- Managed secure cloud deployments on Microsoft Azure

Globalization Partners | Boston, MA, USA
Software Engineer (AI Platform & FinTech Systems)   Mar 2020 – Apr 2023
Scope: Financial systems, ML experimentation, high-availability APIs
- Developed high-throughput financial APIs in Node.js, Go, C#, .NET
- Built fraud detection prototypes using machine learning models
- Implemented GPT-powered financial insights assistant
- Designed compliance documentation search using RAG architecture
- Built ML training pipelines in Python (Pandas, NumPy, Scikit-learn, PyTorch)
- Improved anomaly detection accuracy by 28%
- Led database optimization for PostgreSQL & MongoDB

Senior Full-Stack Developer   Jan 2018 – Apr 2020
Scope: SaaS scaling, CMS ecosystems, ERP integrations
- Helped scale SaaS product from MVP to enterprise-ready platform
- Integrated ERP workflows (inventory, billing, reporting systems)
- Built content-driven marketing & product platforms using Next.js + Nuxt
- Implemented CMS architecture using Strapi + PostgreSQL
- Introduced automated deployments and infrastructure-as-code
- Began predictive modeling experiments for user behavior analytics

Data-Core Systems Inc. | Bristol, PA, USA
Full-Stack Developer – Commerce Systems   Jun 2015 – Dec 2017
Scope: E-commerce architecture, performance optimization
- Built scalable commerce platform using Next.js, Node.js, MongoDB
- Integrated Shopify and NetSuite ERP
- Developed custom checkout and payment systems
- Implemented Supabase authentication & role-based access
- Built early recommendation engine prototype
- Improved checkout conversion rate by 18%

Backend Developer – ERP & API Systems   Apr 2013 – May 2015
Scope: ERP system architecture, API modernization
- Designed REST APIs using Node.js, Flask, Django REST
- Built reporting engines and data workflows for ERP modules
- Optimized PostgreSQL indexing and schema design
- Reduced server response times by 35%
- Helped migrate legacy monolith to modular service structure

Chegg Inc. | **Santa Clara, CA, USA**

Senior Frontend Engineer   Jul 2010 – Mar 2013
- Led migration to Angular SPA architecture
- Built enterprise dashboards and analytics panels
- Improved UI performance by 30%
- Standardized component libraries
Frontend Developer   Aug 2008 – Jun 2010
- Developed CMS-driven business websites
- Built responsive UI systems using HTML, CSS, JavaScript
- Optimized SEO performance
Web Development Intern   Jun 2007 - Jul 2008
- Assisted in frontend development and database support
- Gained foundational experience in web systems architecture

Projects

ZetaBarber — Discovery & Booking Platform for Local Barbers   **Live link**
Tech: Next.js, Node.js, TypeScript, PostgreSQL, shadcn/ui, React Hooks
A discovery and booking platform that connects users with local barbers through search, scheduling, and automated reminders. Built for high performance and a responsive experience across devices.
Key Contributions & Architecture:
- Designed and implemented a full-stack Next.js application with server-side rendering and API routes on Node.js.
- Built an API-driven backend with structured data modeling and validation for appointments and user flows.
- Implemented search by city, appointment scheduling, and automated reminder flows.
- Delivered a responsive UI using shadcn/ui and React Hooks for consistent, maintainable components.
- Structured the frontend and backend for scalability and iterative feature delivery.

Warmly AI GTM Platform — AI-Native Revenue Platform   **Live link**
Tech: React, Redux, Tailwind CSS, TypeScript, AI/LLM, .NET Core
An AI-native go-to-market platform for revenue teams, combining person-level intent signals, AI chat/email engagement, and workflow orchestration into a single product.
Key Contributions & Architecture:
- Designed and implemented React-based frontends with Redux for centralized state and predictable updates.
- Integrated AI/LLM services with a .NET Core backend to support chat, email, and intent analysis.
- Built workflow orchestration features for revenue teams and lead engagement.
- Implemented a responsive UI with Tailwind CSS aligned with product design.
- Structured the application for iterative AI feature delivery and performance.

Gmelius — AI Email Assistant & Shared Inbox Suite   **Live link**
Tech: React, AWS, .NET Core, AI/LLM, Storybook, Swagger UI
An AI-powered email assistant and shared inbox suite deployed on AWS, using AI/LLM fine-tuning for drafting and triage, with documented UI components and APIs.
Key Contributions & Architecture:
- Developed a CMS-style backend with clear separation between admin and public access layers.
- Designed role-based authorization to enforce strict content publishing boundaries.
- Built admin dashboards for managing content, updates, and investment-related information.
- Structured database schema for long-term extensibility and data consistency.
- Implemented clean frontend architecture to support heavy content rendering without performance degradation.
- Focused on maintainability and clear API boundaries to support future team collaboration.

Education

Master of Science (M.S.) Computer Science	Jul 2005 - Aug 2007

California Lutheran University

Bachelor of Science (B.S.) Computer Science	Jul 2001 - Jun 2005

California Lutheran University

Additional Information

Work Model: Sole Contractor (individual contributor)
Communication: Native-level English
Remote Readiness: Stable high-speed internet and professional remote setup
Time Zone Flexibility: Able to overlap with U.S. PST, CST, and EST business hours
Cloud & DevOps: Experience deploying production systems on Microsoft Azure, AWS, Vercel, Netlify
Security Mindset: Background in Cybersecurity & Information Assurance
AI Focus: Actively building and deploying LLM, RAG, and computer vision systems in production environments