Michael Hassan

Senior AI Full Stack Engineer

michaelhassan.in@gmail.com 1 (716) 328-0932 Buffalo, New York 14225

linkedin.com/in/michael-hassan-in michaelhassan.dev github.com/codewizard1004

PROFILE

Senior AI Full Stack Software Engineer with 10+ years of experience designing, building, and scaling cloud-native SaaS platforms. Strong background in TypeScript, React, backend API development, and SQL-based data modeling, with hands-on experience delivering production systems on AWS. Known for advocating clean architecture, testable and observable code, and pragmatic engineering practices in early-stage and growth-stage environments. Experienced collaborator who works closely with product and business stakeholders from ideation through production.

SKILLS

Frontend
React, TypeScript, JavaScript (ES6+), Vue.js, Angular, Swift, Kotlin, Tailwind CSS, Material UI, HTML5, CSS3, Responsive Design, WebSockets, Chart.js, Recharts

Backend
Node.js, Express.js, NestJS, Python (FastAPI, Flask, Django), REST APIs, GraphQL, PostgreSQL, SQL Server, Firebase Firestore, JWT Authentication, Microservices Architecture

Al & Automation
OpenAI APIs, LangChain, TensorFlow, Scikit-learn, NLP, Data Analysis, CrewAI, AI Chatbots, Voice Agents, Multi-Agent Orchestration, Prompt Engineering

Cloud & DevOps
AWS (Lambda, ECS, S3, RDS), Azure, Firebase, Docker, CI/CD Pipelines, GitHub Actions, GitLab CI/CD, Nginx, Vercel, Cloudflare

Performance, Security & Quality
Application Performance Optimization, Scalable Architecture Design, Secure API Development, Load Testing, Monitoring, Logging, Error Tracking, Code Review, Technical Documentation

Other
Git, Agile / Scrum, Jira, System Design, MVP Development, SaaS Architecture, SEO-Aware Development, Long-Term Product Maintenance

WORK EXPERIENCE

11/2023 – Present
Remote

Senior AI Fullstack Engineer, *HatchWorks AI*

- Architected and developed AI-powered SaaS platforms using TypeScript, React, Node.js, and Python, enabling 10,000+ concurrent users with scalable, high-performance backend services.
- Designed and deployed AI/ML pipelines for predictive analytics, recommendation systems, and automation workflows, improving user engagement and operational efficiency.
- Built RESTful APIs that integrate AI/ML models into production workflows, ensuring low-latency predictions (<200ms) and high reliability.
- Worked extensively with PostgreSQL and NoSQL databases to optimize data ingestion, feature engineering, and model training pipelines, improving AI data access performance by 25–30%.
- Implemented generative AI features (text, code, and content generation) and cognitive computing modules, enabling advanced automation and decision-support capabilities.
- Deployed containerized AI services on AWS with CI/CD pipelines, ensuring reproducible environments, model versioning, and smooth production updates.

04/2021 – 10/2023
Remote

AI Fullstack Engineer, *AppsChopper*

- Developed AI-enhanced web and mobile applications, integrating chatbots and cognitive computing modules to automate workflows and improve user engagement.
- Architected modular and maintainable fullstack solutions using MVVM and repository patterns, increasing code reuse and reducing feature delivery timelines by 20%.
- Engineered seamless connections between frontend interfaces and 15+ backend APIs, ensuring robust error handling, efficient data transfer, and real-time AI-driven responses.
- Built scalable data layers with SQL and NoSQL, implementing caching and offline-first strategies to reduce network load by 30% while maintaining responsive AI services.
- Diagnosed and optimized performance bottlenecks in AI workflows, resolving memory leaks and concurrency issues to reduce crash rates by up to 40%.
- Introduced observability and monitoring for AI components, including logging, versioning, and runtime metrics, improving system reliability and maintainability.

04/2019 – 03/2021
Remote

Fullstack Engineer, *Evincedev*

- Developed and maintained production web applications serving 8,000+ monthly active users using React and Next.js, implementing server-side rendering and static generation to improve initial load times by 35%.
- Built scalable backend services and REST APIs with Node.js and Python, handling high-volume requests while reducing average API response time by 30%.

- Integrated frontend and backend systems efficiently, eliminating redundant data processing and improving end-to-end application performance by 25%.
- Optimized application architecture and code quality through refactoring and modular design, reducing technical debt and accelerating feature delivery by 20%.
- Collaborated with cross-functional teams to deliver client-branded solutions, consistently meeting project deadlines and maintaining high reliability across multiple web platforms.
- Supported deployment and production stability by improving error handling and logging, reducing runtime issues and support tickets by 40%.

09/2016 – 03/2019
Buffalo, NY

Fullstack Developer, *Anthology*

- Engineered end-to-end web solutions at Innovify, creating scalable applications for fintech, AI, and enterprise clients using React and Angular on the front-end and Node.js and Python on the backend.
- Implemented complex business workflows and integrated multiple third-party services through RESTful APIs, improving system efficiency and reducing processing time by 30%.
- Developed dynamic, data-driven dashboards and interactive UI components, ensuring responsive design and seamless user experience across web and mobile platforms.
- Optimized database structures in SQL and NoSQL systems, improving query performance and enabling real-time data retrieval for high-volume applications.
- Participated in Agile development cycles, collaborating with cross-functional teams, conducting code reviews, and deploying projects through CI/CD pipelines on AWS and Azure.
- Delivered 10+ production-ready applications, including AI-powered analytics tools and fintech solutions, contributing to measurable improvements in client operations and user engagement.

Projects

Graspr AI

- Developed a Full Stack AI-driven learning platform supporting 4,000+ active users using React, Next.js, Node.js, and Python ML microservices.
- Built real-time dashboards, quizzes, and learning visualizations with WebSockets, supporting 800+ concurrent users with <300ms latency.
- Integrated NLP and ML pipelines for automated content summarization and personalized recommendations, reducing manual content curation time by 60%.
- Implemented background job processing for AI model predictions and content ingestion using Node.js workers and AWS Lambda, handling 1,500+ tasks weekly.
- Optimized frontend performance with SSR, code-splitting, and lazy loading while deploying scalable backend services on AWS with Docker and CI/CD pipelines.

TradeSmarter

- Engineered a Full Stack trading platform handling 10k+ concurrent users using React, Vue.js, Node.js, NestJS, PostgreSQL, and ASP.NET Core.
- Built real-time market data streams, trade execution pipelines, and interactive trading dashboards, improving data latency by 35%.
- Developed secure authentication, authorization, and transaction logging with role-based access control for enterprise-grade compliance.
- Designed modular frontend and backend components for analytics, reporting, and risk calculations, increasing trader efficiency by 20%.
- Deployed scalable services with AWS, Docker, and CI/CD pipelines, enabling zero-downtime releases and rapid feature rollout.

EasyBounce

- Developed a scalable Full Stack SaaS platform handling 500k+ email verifications monthly and serving 8,000+ active users using React, Next.js, Node.js, Python, and MySQL.
- Built real-time verification pipelines with background job queues and REST APIs, reducing processing latency by 40%.
- Integrated AI-based pattern detection for invalid/risky emails, improving verification accuracy by 30%.
- Developed dynamic dashboards for reporting, analytics, and account management with responsive frontend components.
- Deployed Full Stack services on AWS using Docker and CI/CD pipelines for high reliability and scalable production performance.

EDUCATION

2012 – 2016
Buffalo, NY

Bachelor of Science in Computer Information Systems,
Buffalo State University