

EJ MALEK

Solution Architect | AI Engineer

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PROFESSIONAL SUMMARY

Experienced Solution Architect and AI Engineer with 15+ years of technical leadership experience spanning frontend development, full-stack architecture, and enterprise AI systems. Proven track record of designing and deploying scalable AI solutions that serve millions of inference requests while reducing infrastructure costs by 35%. Expertise in MLOps, computer vision, natural language processing, and distributed systems architecture. Strong background in translating complex business requirements into robust technical solutions.

TECHNICAL SKILLS

AI & Machine Learning: Machine Learning Architecture • MLOps • AI System Design • TensorFlow • PyTorch • Model Deployment • Computer Vision • Natural Language Processing • Vector Databases • Data Pipeline Architecture

Cloud & Infrastructure: AWS • GCP • Kubernetes • Docker • Microservices • DevOps • CI/CD • Infrastructure as Code • Performance Tuning • Distributed Systems

Development & Architecture: Python • JavaScript • TypeScript • Node.js • React.js • Vue.js • REST APIs • GraphQL • System Integration • Technical Leadership • Software Architecture

Data & Databases: Data Engineering • PostgreSQL • MongoDB • Redis • Data Pipeline Architecture • Performance Optimization

Tools & Platforms: Git • Docker • Nginx • Webpack • Linux • Agile Development • Performance Monitoring Tools

PROFESSIONAL EXPERIENCE

Solution Architect | AI Engineer

Freelance | Austin, TX | September 2019 – Present

- *Architected and deployed enterprise-scale AI solutions specializing in computer vision and natural language processing applications serving millions of inference requests with sub-100ms response times*
- *Designed distributed AI architecture supporting real-time computer vision processing, improving system throughput by 3x while reducing infrastructure costs by 35%*
- *Built robust MLOps pipelines with automated model retraining and A/B testing frameworks, reducing model deployment time from weeks to hours*
- *Architected scalable NLP solutions handling multi-language text processing, implementing efficient vector databases and semantic search capabilities*
- *Led cross-functional collaboration with data science, engineering, and product teams to translate business requirements into technical AI system specifications*
- *Established monitoring and observability frameworks for model performance, data drift detection, and system health across production environments*

Full Stack Developer

Freelance | Houston, TX | January 2014 – September 2019

- *Architected full-stack applications handling high-volume data processing and real-time analytics, processing 1M+ daily transactions with 99.9% uptime*
- *Developed RESTful APIs and microservice architecture supporting multiple client applications*
- *Implemented automated deployment pipelines and infrastructure as code, reducing deployment time by 60% and establishing DevOps foundations crucial for modern MLOps practices*
- *Built data-intensive applications with complex business logic, including recommendation features and user behavior analytics*
- *Optimized database performance and designed efficient data models for PostgreSQL and MongoDB, developing deep understanding of data architecture principles essential for AI system data management*

Front End Developer

Freelance | Houston, TX | November 2009 – January 2014

- *Architected component-based frontend systems serving 100K+ daily active users, implementing efficient state management and real-time data synchronization*
- *Designed and built interactive data visualization dashboards, creating intuitive interfaces for complex datasets and analytics*
- *Optimized application performance through lazy loading, caching strategies, and API optimization, achieving 40% improvement in load times*
- *Collaborated with backend teams to design RESTful APIs and integrate with microservices architecture, developing understanding of distributed system communication patterns*
- *Implemented responsive design systems and maintained cross-browser compatibility across diverse deployment environments*

Art Director

Pi Studios | Houston, TX | December 2005 – October 2009

- *Led creative direction and visual design for 3D Games and digital media projects*
- *Managed cross-functional teams and collaborated with technical stakeholders on project requirements*
- *Developed problem-solving methodologies and attention to detail that inform current approach to AI system design*

EDUCATION

Associate of Applied Science, Computer Animation

The Art Institutes, Houston, TX

Professional Development in Business

University of Houston, Houston, TX

KEY ACHIEVEMENTS

- Performance Optimization: Improved AI system throughput by 3x while reducing infrastructure costs by 35%
- Deployment Efficiency: Reduced model deployment time from weeks to hours through automated MLOps pipelines
- Scale Management: Successfully architected systems handling 1M+ daily transactions with 99.9% uptime
- Team Leadership: Led cross-functional collaboration between data science, engineering, and product teams
- Technical Innovation: Pioneered real-time computer vision processing and multi-language NLP solutions