

Hamad Khawaja

khawajahamad217@gmail.com | Chicago, IL | 203-709-0847 | <https://github.com/hamad-khawaja>

Principal Engineer with 8+ years of experience architecting enterprise-scale cloud infrastructure. Proven track record of delivering cost optimizations, owning end to end solutions and leading teams of 10+ engineers, and driving ai-cloud first transformation initiatives.

Principal Engineer | (OPTUM, United HealthCare)

Feb 2025 – Present

Cloud Architecture & Migration Solutions:

- Focused on enterprise-wide enablement and leading the company towards a better technology landscape. Responsible for helping enterprise achieve 70% to cloud by end of 2027.
- Major projects include Lift and Shift migrations from on-prem VMWare workloads to the cloud, AVD multi-region deployment in Azure, enhancing EKS security and responsible for automation of GovCloud tenants in azure.
- Worked on ClaimsAI tool, an intelligent tool that prepopulates information and generates recommendations for claims agents, reducing processing time and improving accuracy across claims workflows

Lead Software Engineer (OPTUM, United HealthCare)

Feb 2024 – Feb 2025

- Led cross-functional teams in designing and implementing microservice architectures. Implemented automated CI/CD pipelines. Managed a team of 10 software engineers.
- Reduced cloud infrastructure costs by \$500K+ through implementation of optimization strategies.

Software Engineer | (OPTUM, United HealthCare)

Oct 2017 – Feb 2024

- Built AI Chatbot application supporting all internal 300,000 employees. Saved over 1M+ in help center reduced call times. Implemented search functionality using Elastic search. On call rotation 24x7 for Chatbot Application.
- **MLOps** for Rasa based models deployed to Azure.

Software Engineer | ESPN

Sep 2016 – Jan 2017

- Developed scalable backend services and REST APIs for high-traffic applications.

Projects

AI Cloud Diagram Generator

AI Project that generates robust, secure, and user-friendly cloud architecture diagrams in seconds with just a simple description or any existing Infrastructure as code. <https://github.com/hamad-khawaja/diagram-ai>

Education

B.S. in Computer Science - Central Connecticut State University (2013 – 2017)

- GPA: 3.5 | **Dean's List:** Spring 2015, Spring 2016

Technical Skills

- **Cloud Platforms:** Azure (AVD, AKS, Entrald, Azure Policies), AWS (EKS, IAM, S3, Lambda), GCP
- **AI:** LLM serving at scale, RAG pipeline architecture, AI system design patterns, MLOps, Prompt Engineering
- **DevOps & IaC:** Terraform, GitLab CI/CD, GitHub Actions, Helm, Argo CD, Docker, Kubernetes
- **Programming:** Python, Java, Spring Boot, JavaScript, TypeScript, Bash, PowerShell, SQL
- **Security & Compliance:** Identity Management, FedRAMP, GDPR, FISMA
- **Networking:** Firewall, Cloud Networking, VPN, Routing Protocols, NSG's, Load-Balancers, Net Peering, DNS

Certifications & Conferences

- AWS re:Invent 2024 • AWS Certified Cloud Practitioner • Microsoft Professional Program in Artificial Intelligence

LEADERSHIP & IMPACT

Technical Speaking & Mentorship: Presented technical topics at internal tech talks to 200+ engineers. Also regularly mentor junior developers.

