

# Hamza Khan

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## EDUCATION

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### UNIVERSITY of ILLINOIS CHICAGO

Chicago, IL

*Bachelor of Computer Science*

*Expected Graduation December 2027*

- Relevant Coursework: Data Structures, Systems Programming, Machine Organization, Software Design
- GPA: 3.60, Dean's List

## SKILLS

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**Programming:** Python, C++, Java, C, JavaScript/TypeScript, SQL, HTML/CSS, React.js, Node.js, Express.js, OOP, RESTful APIs

**Cloud & DevOps:** AWS (S3, Lambda, DynamoDB, CloudFront, Route 53, SAM), Serverless Architecture, CI/CD, GitHub Actions, GitOps, Docker, Kubernetes, Git, Terraform, YAML, Linux, Bash

**Certifications:** AWS Cloud Practitioner, AWS Solutions Architect Associate, AWS AI Practitioner

## EXPERIENCE

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### Cloud Engineer Intern

January 2026 - April 2026

Norfolk Southern Corporation

Atlanta, GA

- Built an AWS tag compliance system (Lambda, DynamoDB, SES) that scans EC2 resources daily and automates remediation emails, reducing manual audits and cutting untagged instances by ~25–40%.
- Developed an LLM-powered cloud agent using AWS Bedrock, enabling 8–15 engineers to quickly surface cost, hygiene, and best-practice insights, reducing investigation time from hours to minutes.
- Used Infrastructure as Code to provision AWS resources in minutes, including ALBs, Security Groups, Lambda, and CloudWatch, reducing configuration drift and accelerating deployments.
- Built reusable Terraform modules for AWS Controllers for Kubernetes (ACK), enabling teams to provision S3 buckets, ALBs, and other AWS resources through ArgoCD with consistent security, and configuration standards.

### Research Intern

June 2024 - August 2024

University of Illinois Chicago

Chicago, IL

- Analyzed and benchmarked the performance of 6+ machine learning algorithms in power system applications, producing a comparative study to guide departmental research.
- Extracted and summarized methodologies from 18 academic papers, presenting insights on AI trends in energy systems to senior researchers in weekly meetings.
- Conducted a comprehensive evaluation of supervised, unsupervised, and deep learning models, identifying optimal approaches for forecasting, optimization, and fault detection.

## PROJECTS

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### Cloud Resume Challenge

August 2025

- Deployed a serverless resume website on AWS (S3, CloudFront, Route 53), achieving high availability and global reach.
- Integrated AWS Lambda and DynamoDB for backend visitor tracking, logging 50+ visits in the first month.
- Automated infrastructure provisioning with an AWS SAM template, streamlining deployment and scalability.
- Established CI/CD pipelines with GitHub Actions, reducing deployment time to under 2 minutes.

## ACTIVITIES AND LEADERSHIP

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### Volunteer Coordinator

September 2020 - August 2024

ICNA Relief

Naperville, IL

- Coordinated and led bi-weekly food distribution, supporting 50+ families and strengthening volunteer teamwork.
- Contributed to fundraising initiatives, helping raise over \$500,000 in donations for community relief efforts.