

# Mohammad Khalaf

St. Louis, MO • mkhalaf1999@gmail.com

## PROFESSIONAL EXPERIENCE

---

### HARMONYHEALTH.AI

ST. LOUIS, MO

Founder

JUNE 2025-Present

- Building [harmonyhealth.ai](https://harmonyhealth.ai) - AI Voice agents producing America's largest healthcare pricing platform.

### TRYMEELA AI

REMOTE/SAN FRANCISCO, CA

Founding Engineer

MAR 2025-Apr 2025

- Venture-backed AI edtech platform for agentic AI tutoring.
- Architected vision-based AI OCR scanning feature for tutoring problems & decreased quiz latency by >90%

### AMAZON WEB SERVICES (AWS)

Arlington, VA

Software Development Engineer

OCT 2021-Jan 2025

- Authorization & Security for AWS S3 - foundational storage for *hundreds of trillions* of objects.

#### *Project Highlight: Revamping S3 Authorization - ACLRequired* ([Public Announcement Post](#))

- Developed **aclRequired** Field: Designed and implemented the aclRequired field in Amazon S3 server access logs and AWS CloudTrail, providing users with visibility into requests dependent on ACLs for authorization.
- Engineered authentication updates across billions of daily AWS S3 requests to evaluate the impact of disabling access control lists.
- Optimized performance via extensive stress testing and metric analysis, reducing latency to **near-zero ms..**
- Led design discussions from initial concept to public announcement, coordinating across product management, developers, and executive leadership.

#### Key Accomplishments

- Distinguished as one of four first responders for global, critical incidents in S3 security and authorization
- Developed next-generation real-time log fetching capabilities, significantly improving visibility across the entire S3 WebServer
- **Technical Skills:** Java, Python, AWS, Application Security, Distributed Systems, Performance Optimization, Golang\*, Ruby\*

### BLOOMBERG LP

New York City, NY

ML Data Scientist

JUL - AUG 2020

- Developed web application for return to office dashboard and optimized desk assignment algorithm, reducing initial rendering time by **90%**.
- Led the integration of natural language processing using VADER's **Python** library to conduct customer sentiment analysis and quantify employee performance as part of a detailed workflow study.
- **Technical Skills:** Python, TensorFlow, sklearn, AI ML, VADER NLP, Web Application Development

### BLUE YONDER (FORMERLY JDA SOFTWARE)

Atlanta, GA

Software Engineer - Platform Development

JUL - AUG 2019

- Developed features in large-scale web applications in Spring Boot and Angular for a Fortune 10 client.
- Built, presented, and deployed internal search functionality leveraging Test-Driven Development (TDD)
- **Technical Skills:** Java Spring Boot, Angular, JavaScript, Test-Driven Development

## EDUCATION

---

### EMORY UNIVERSITY

Atlanta, GA

*Bachelor of Science, Major in Computer Science & Mathematics*

2017-2021