

# Mohammad Khalaf

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## PROFESSIONAL EXPERIENCE

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CAREQUOTESAI [HARMONYHEALTH.AI](http://HARMONYHEALTH.AI)

REMOTE

Founding Engineer

JUNE 2025-Present

- Building AI Voice agents that automate medical procedure quote collection.
- End-to-end automation with intelligent provider matching, calling practices w/ TwiML, & automated reporting
- Scraping practitioner datasets to build repository of >1,000,000 providers
- **Tech Stack: Python, Typescript, NextJS, PostgreSQL, React TwiML, Docker**

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 & **improved 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.
- **Distinguished as one of four global responders** for global, critical incidents in S3 security and authorization
- Real-time log fetching capabilities for Earth's largest system. Improved visibility across the S3 WebServer

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

- Designed and engineered **aclRequired**, an authorization flow for **hundreds of millions of requests a second**
- Optimized performance via extensive stress testing and metric analysis, **reducing latency by >95%**.
- Led design discussions from initial concept to release, coordinating across engineering and leadership
- **Technical Skills: Java, Python, AWS, Typescript, Ruby, Distributed Systems, Performance Optimization**

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, ML Tuning, 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

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EMORY UNIVERSITY

Atlanta, GA

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

2017-2021