

Muhammed Abdel Hamid Shelleh



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Industry Experience

AbbVie

Waukegan, Illinois

AI/ML Engineering Intern

May 2022 - Aug 2022

- Architected and deployed AI-driven search system using transformer-based models, improving query accuracy by 40% for 200+ users
- Implemented full-stack solution using React, Python, and AWS, processing 2TB+ of healthcare data
- Achieved 98% accuracy in data migration while maintaining strict healthcare compliance standards

Texas Instruments

Dallas, Texas

ML Platform Engineer Intern

May 2021 - Aug 2021

- Developed predictive analytics platform processing 1TB+ of usage data with 92% accuracy
- Built and deployed 10+ ML-powered Splunk dashboards for real-time usage pattern analysis
- Implemented distributed data processing pipeline using Python and AWS services

AZZLY

Vero Beach, Florida

Psychiatric Software Engineering Intern

Sep 2018 - Aug 2019

- Assisted in developing HIPAA-compliant EMR system serving 500+ psychiatric healthcare providers
- Implemented React-based frontend components, and worked with Azure for backend

Northwestern University IT

Evanston, Illinois

Endpoint Technical Support Specialist

Nov 2022 - Jan 2023

- Offered Endpoint Device Management & troubleshooting at the Rebecca Crown Center. Applied working knowledge of internal systems & devices to solve issues.
- Managed technical operations for 500+ end users while maintaining system uptimes.
- Implemented support protocols reducing resolution time by 25% across 200+ monthly tickets.

KPMG

Lake Nona, Florida

Deskside Services Advisor I

Jan 2022 - Mar 2022

- Supported 2000+ users with Windows/Mac operating systems & network troubleshooting/repairs, including various Associates, Managers, & Partners throughout the firm, while maintaining system uptimes.
- Updated knowledge base for various IT troubleshooting topics, reducing repeat tickets by 25% across organization.

Rayonier Advanced Materials

Jacksonville, Florida

IT Applications Programming Analyst

Jul 2020 - Oct 2020

- Maintained multiple business applications processing 100k+ daily reports, including configuration, code management & programming using Python, cron jobs, SQL & Web reports.
- Optimized PowerShell installation queries across various manufacturing systems, reducing response time by 50% and automation by 20%.

Education

University of Central Florida	Orlando, Florida
M.S. Computer Science (GPA: 3.30) (Research Focus: Health Informatics)	Jan 2020 - Dec 2022
B.S. Interdisciplinary Studies (Minor: Health Sciences)	Jan 2017 - Jul 2019

Technical Skills

Languages: Python, Go, C, JavaScript

Data: SQL, Spark, Tableau

Tools: JIRA, Splunk, VMware

AI/ML: PyTorch, TensorFlow, LLMs

Cloud: AWS, Docker, CI/CD

Compliance: HIPAA, NIST CSF

Selected Projects, Publications & Awards

Patent Holder for AI/ML Theoretical Architecture for Electronic Health Record System Prediction (Patent #US20240256770A1)
PC-LSTM: Ontology-based Healthcare Analysis (Published in IEEE Journal in 2023)
NSF Grant #2128684 Recipient for AI Research
MADI: ML System for Healthcare Data (Published in IEEE Journal in 2022)
UCF Research Excellence Award 2019

AI/Theory Research & Teaching

Systems Researcher | University of Illinois Chicago

Jan 2023 - Dec 2024

- Developed formal verification systems using Coq/VST, reducing verification time by 30%
- Created instructional materials for 250+ students in Machine Organization course

Healthcare AI Researcher | University of Central Florida

May 2021 - Dec 2022

- Architected MADI system analyzing 44M+ patient records with 90% prediction accuracy
- Published multiple IEEE papers on transformer-based healthcare AI applications