# Abdulmalık Ajisegiri

Dallas Fort-Worth Texas, US

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## Education

## University of Oklahoma

May 2026

Master of Science in Systems Engineering, Focus in Advanced Analytics & Model Metaheuristics

GPA: 3.8/4.0

• Relevant Courses: GenAI Models, Risk Analytics & Metaheuristics, Model-Based Systems Engineering

## University of Texas at Arlington

August 2024

Bachelor of Science in Computer Engineering, Minor in Mathematics

• Honors: Dean's List X4 - Maverick CSE Academic Scholarship recipient - NextGen Leaders Scholarship recipient

## Technical Skills

Risk & Analytics Tools: SAS Studio, MATLAB, Tableau, PowerBI, Scenario Analysis, Stress Testing, VaR Concepts AI/ML & Modeling: LLM evaluation (BLEU, ROUGE, SBERT, NLI), Hugging Face, LangChain, RAG pipelines, Vector Databases, PyTorch, TensorFlow, scikit-learn, XGBoost, NumPy, Pandas

Programming Languages: Python, SQL, C/C++, JavaScript, TypeScript, HTML/CSS, React, Node.js

Systems & Developer Tools: AWS, GitHub, Jupyter, JIRA, Jama, Cameo Systems Modeler, Simulink, Docker, Postman

## Experience

DTCC

August 2024 - Present

Model Risk Engineer

Dallas, TX

- Lead validator and product owner for Tier 2-4 AI/ML models, applying quantitative evaluation methods (including stress testing, benchmarking, and NLP-based metrics) to assess model robustness under varied market and risk conditions, improving benchmark accuracy and completeness by  $\sim 30\%$  across enterprise use cases.
- Applied SR 11-7 model risk principles to ensure proper governance, documentation, and control testing; collaborated with enterprise risk teams to evaluate model assumptions and reduced identified issues by  $\sim 40\%$  prior to deployment.

## Collins Aerospace

August 2023 - July 2025

Software Systems R&D Engineer (Secret Clearance)

Richardson, TX

- Designed & developed an event-driven test harness in C++ to simulate 80+ RF command scenarios using CSV-based input, timed execution, and real-time message dispatch.
- Automated validation of frequency control across HF subsystems, reducing manual test time by 80% and supporting traceability for 300+ Jama requirements.

Deloitte LLP

May 2022 - August 2023

Cuber Risk Intern

Houston, TX

• Supported system risk aligning the EngineWise platform with NIST CSF standards; assessed control gaps, strengthened 5 REST APIs, coordinated incident response planning with 50+ developers to improve operational resilience.

## Projects & Research

#### GenAI Risk-Bench Model | Python, OpenAI API, SBERT, NLI

Jan 2025 – Present

\* Built a validation framework to benchmark LLMs on financial prompts across trade logic, options pricing, and risk explanations; integrated BLEU/ROUGE, SBERT embeddings, and NLI to detect hallucinations, logic drift, and confidence gaps.

## Metaheuristic Search Framework for Mixed Optimization | Python, AMPL, Gurobi

May 2025

\* Implemented SA, ILS, Tabu, GA, and PSO to solve 50+ multi-objective LP/IP problems; evaluated on feasible space coverage, convergence rate, and solution quality under randomized constraints.

#### Certifications

\* Certified Information Systems Auditor (CISA) ID: 242705748

Verify on Credly

MATLAB Certified

Certificate Link

Simulink Certified

Certificate Link

## Leadership / Extracurricular

NSBE (National Society of Black Engineers)

2020 - Present

Member

ISACA (Information Systems Audit and Control Association)

2024 - Present