ABDULMALIK AJISEGIRI

Dallas–Fort Worth, TX | 346-297-8021 | abdulmalikajisegiri@gmail.com
linkedin.com/in/malikajisegiri | github.com/Maleek23

SUMMARY

Model-risk and cybersecurity engineer at DTCC, working across the AI/ML model-risk lifecycle — model identification, SR 11-7 determination, and independent validation of models including LLMs and NLP systems. Previously, embedded avionics R&D at Collins Aerospace (DO-178C) and enterprise cyber-risk at Deloitte (NIST CSF, incident response). CISA-certified; proficient in Python and SQL.

TECHNICAL SKILLS

Security & Risk: NIST CSF, Vulnerability & Risk Analysis, Incident Response, Security Assessment, Control-Gap Assessment, Model Validation (SR 11-7), Regulatory Compliance

Aviation & Systems: RTCA DO-178C, Digital Aircraft Security, Avionics Test Harnesses, RF/HF Subsystems, SysML, Cameo Systems Modeler, Jama, V&V

Languages & Scripting: Python, SQL, C/C++, JavaScript/TypeScript, React, Node.js

Platforms & Methods: Cloud (AWS, IaaS/PaaS/SaaS), Docker, GitHub, JIRA, Postman, Agile/SDLC, MATLAB/Simulink, Power BI

PROFESSIONAL EXPERIENCE

Depository Trust & Clearing Corporation (DTCC) Aug 2024 – Present
Model Risk & Validation Engineer

- Own the end-to-end model-risk lifecycle for AI/ML and quantitative models — identification, SR 11-7 determination and classification, and independent validation (backtesting, sensitivity analysis, benchmarking, challenger-model development) — resolving ~40% of pre-deployment issues through structured governance reviews.
- Developed quantitative evaluation frameworks (SQL, Power BI, Python NLP metrics, stress-testing, statistical benchmarks) for production AI/ML systems — LLMs, RAG pipelines, and NLP classifiers — improving review accuracy and completeness ~30%; authored assessment reports for model owners and senior risk leadership to support audit readiness.

University of Oklahoma, Gallogly College of Engineering Aug 2025 – May 2026
Graduate Teaching Assistant — Model-Based Systems Engineering

- Led graduate lab sessions for ISE 5893 (MBSE), guiding students through Cameo Systems Modeler, MATLAB/Simulink, and Python for scenario and sensitivity analysis of cyber-physical and software-intensive systems; emphasized requirements traceability and lifecycle V&V.

Collins Aerospace (RTX) Aug 2023 – Aug 2024
Software Systems R&D Engineer — Secret Clearance

- Designed an event-driven C++ test harness simulating 80+ RF command scenarios (CSV-driven inputs, timed execution, real-time message dispatch) for embedded avionics, cutting development test cycles ~80%.
- Applied MBSE (Cameo, MATLAB/Simulink) to decompose and allocate hardware/software requirements and maintain traceability across 300+ Jama requirements for DO-178C-compliant design verification and HF frequency-control testing.

Deloitte LLP May 2022 – Aug 2023
Cyber Risk Intern

- Assessed control gaps and hardened 5 REST APIs during NIST CSF-aligned security and operational risk assessments; coordinated incident-response planning across 50+ engineers to strengthen security posture.

PROJECTS & RESEARCH

Agentic AI Model Risk Management (MRM) Platform 2026 – Present

- Built an agentic AI platform that automates the model-risk identification lifecycle end-to-end — autonomous data extraction, SR 11-7 classification, one-click artifact/memo generation, and real-time pipeline tracking with SLA enforcement and audit trail — replacing a manual spreadsheet-and-email workflow; architected with LLM-driven agents to scale from individual use to firm-wide adoption.

QuantEdge Labs | quantedgelabs.net Jan 2025 – Present

- Architected an end-to-end trading system in Python/Docker — ML-calibrated probability scoring, technical-indicator modules, automated OCC symbol generation, dynamic position sizing, and risk-adjusted entry/exit — with simulation-based verification across 150+ daily opportunities.

Clinical Risk Predictive Model — Cardiac Surgery Outcomes 2025

- Engineered a MATLAB/Python ML pipeline (stacked ensemble, $R^2 = 0.81$) predicting operative mortality from 20+ preoperative variables, with multicollinearity pruning, hyperparameter optimization, and residual bias analysis.

EDUCATION

University of Oklahoma — M.S. Systems Engineering (Advanced Analytics & Model Metaheuristics) May 2026
GPA 3.7/4.0 | Coursework: Generative AI Models, Risk Analytics & Metaheuristics, Model-Based Systems Engineering

University of Texas at Arlington — B.S. Computer Engineering, Minor in Mathematics

CERTIFICATIONS & AFFILIATIONS

CISA (ISACA) | MATLAB Certified | Simulink Certified | Member: NSBE | ISACA