Erika R. Hall

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SUMMARY

AI/ML Engineer with hands-on experience building solutions using NLP, RAG, and LLM technology. Collaborative problem solver who is eager to expand on experience implementing emerging AI/ML and MLOps techniques.

EDUCATION

Texas Tech University, Lubbock, TX								May 2023
B.S., **Computer Science**; Minor, **Mathematics**					*Dean's List:* 3.9
Awards: **Proven Achievers Scholar**, **Coronat Scholar**, **Renée Crown Honors Student**

EXPERIENCE

Lockheed Martin, Chief Data and Analytics Office, Austin, TX			June 2023 - June 2025
AI/ML Data Science Engineer
- Created an LLM-based proof of concept chatbot app that answers questions about Business Process Architecture diagrams, resulting in stakeholder buy in
- Invented technique for parsing diagrams to combat LLM hitting a diagram size threshold, increasing that threshold to enable LLM to digest and answer questions about larger, more intricate diagrams
- Developed *QuINCI*, a LangChain-powered RAG-LLM solution that synthesizes historical discrepancy data to recommend corrective actions for Quality Engineers, increasing decision speed and accuracy
- Integrated explainability techniques in *QuINCI* to enhance model transparency and promote user trust
- Documented Flyte pipeline implementation during a company tooling transition, accelerating adoption

AI/ML Data Science Engineer Associate
- Designed, coordinated, and hosted an organization-wide competitive NLP hackathon on a real-world flight safety use case on aircraft accident data, generating a suite of solutions for our aviation safety stakeholder
- Conducted prompt engineering and built Streamlit app for LLM-based solution that generates purchase order content for orders over $25k, reducing time needed to research and draft supply chain documents
- Pioneered job utilization in homegrown development platform, paving the way for cross-company adoption and integration with Astris AI
- Identified a critical logical error in previously built ML code just before a key deadline, enabling on-time stakeholder delivery
- Created and hosted an NLP Intern Workshop for 20+ interns, providing a technical roadmap and discussion on social application; due to interest adapted for full-time employees

Texas Tech University, Advising Enhancement Project, Lubbock, TX		Jan 2023 - May 2023
Undergraduate Research Assistant
- Coordinated efforts on a 7-person grad student team to engage with advisers, analyze domain data, and develop an LLM-based solution to enhance accessibility to departmental information in the Computer Science program

Lockheed Martin, Chief Data and Analytics Office, Highlands Ranch, CO		May 2022 - Aug 2022
Data Science Intern
- Assessed the performance, support quality, and use case alignment of an SaaS NLP product with a team of 3 to inform investment decisions for the organization
- Built part of a GitOps pipeline using ArgoCD for a TKG instance, enhancing automation and security

SKILLS

Languages/Frameworks: Python, LangChain, OpenAI APIs, NLTK, OpenCV, PyTorch, TensorFlow, Streamlit
DevOps/MLOps: Harbor, OpenShift, GitLab CI/CD, Flyte
Software: Git, VSCode, JupyterLab, Domino Data Lab, Microsoft Office, SharePoint, Confluence, Astris AI
Professional: Stakeholder Engagement, Workshop Facilitation, Presentation Design