

Garrett Gruss

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SUMMARY

Fullstack AI/ML Technical Lead with 2+ years building production GenAI systems at scale. Led multiple engineering teams developing LLM-powered applications using Langchain, RAG architectures, and graph databases.

WORK EXPERIENCE

AI/ML Technical Lead — Systems Engineer, Lockheed Martin PAC-3 Apr 2022 - Present

- **Leading PAC-3 Sustainments's first production AI/ML system** – Leading team building FastAPI-based data pipeline processing manufacturing and operations records. Architected SQLAlchemy ORM with PostgreSQL backend and Pandas + Pandera ETL workflows. System will enable sustainment of \$9.8B of fielded equipment. Deployed on OpenShift with CI/CD automation.
- **Engineered SysML GenAI code generation platform** – Architected and led 4-engineer team developing ArchImedes suite (Java/Python microservices) that auto-generates Cameo system models and requirements documents from natural language. Implemented Langchain/Langgraph pipelines with Neo4j Graph RAG and vector databases.
- **Managed \$10M+ program risk portfolio** – Oversaw 54 task orders across PAC-3 Sustainment Operations. Mitigated \$5M+ in technical and schedule risks through data-driven analysis.

Industry 4.0 Deployment Engineer, Raytheon Intelligence and Space Oct 2020 - Apr 2022

- **Deployed smart manufacturing systems** – Built and validated Ignition SCADA solutions in live production environments.
- **Enabled Factory of the Future initiative** – Delivered Industry 4.0 transformation capabilities across manufacturing operations.

Mechanical Engineer, Raytheon Intelligence and Space

Jun 2019 - Oct 2020

Research Technician, Texas Tech University

Aug 2017 - May 2019

EDUCATION

- Expected Apr 2026 Master's in Software Engineering at **Southern Methodist University** Dallas, TX
- Apr 2019 Bachelor of Science in Mechanical Engineering, Minor in Mathematics at **Texas Tech University** Lubbock, TX

CORE TECHNOLOGIES

AI/ML Development	Langchain, Langgraph, Model Context Protocol (MCP), Neo4j, Google ADK Python, Java, FastAPI, Javalin, Pytest, JUnit, Pandas, SQLAlchemy, Latex, SCADA (Ignition), SQL Server, OpenShift, GitLab CI/CD, Docker, K8s, K3s, SAP/HANA, PostgreSQL
Protocols	MCP, REST, MQTT, MODBUS TCP/IP
Certifications	AWS Certified Cloud Practitioner
Security Clearance	Active Secret Clearance