Hussam Makhoul

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EDUCATION

Texas A&M University — College Station, TX
Bachelor of Science in Computer Science | GPA: 3.85 — *Expected Graduation: May 2027*
Relevant Coursework: Intro to Software Engineering, Data Structures & Algorithms, Computer Architecture, Programming Languages, Database Systems, Computational Data Science, Principles of Data Science

TECHNICAL SKILLS

Languages: Python, SQL, Java, JavaScript, C++, C#, HTML/CSS
Technologies: scikit-learn, Hugging Face, Flask, React, Node.js, .NET, MongoDB, Supabase, Git, Docker, OpenShift
Concepts: Machine Learning, A/B Testing, CI/CD, System Telemetry, NLP, LLMs

EXPERIENCE

Data Science Intern — May 2025 – Aug 2025
Lockheed Martin — *Fort Worth, TX*
- Engineered a robust **CI/CD pipeline** using **GitLab**, **Docker**, and **OpenShift**, cutting deployment time by **75%**
- Automated **CIFS share** provisioning and alerting via **Python** scripts and OpenShift-based trigger actions
- Built a secure internal dashboard with **Flask** and **JavaScript** to monitor **SAP HANA** performance metrics
- Analyzed sustainment data across **3+ programs** using **Python** and **Tableau** to uncover operational trends

Tech Developer Program — Jun 2025 – Aug 2025
Sponsors for Educational Opportunity (SEO) — *Remote*
- Built full-stack web apps in Agile teams using **React**, **Flask**, **SQL**, and **Git** with weekly code reviews
- Collaborated through **GitHub** and pair programming to deliver sprint milestones and iterate on client feedback
- Enhanced system reliability through unit, integration, and system testing with **CI pipelines**

Undergraduate Researcher – Machine Learning — Jan 2025 – May 2025
Texas A&M University — *College Station, TX*
- Trained and evaluated **linear regression models** in **scikit-learn**, achieving R^2 of **0.91** on concrete mix data
- Boosted prediction accuracy by **37%** through targeted **feature engineering** on curing time and mix ratios
- Designed a **Python optimization tool** using **linear programming** to minimize cost under strength constraints

Software Engineer Intern — Aug 2024 – Dec 2024
Switchless — *College Station, TX*
- Reduced backend latency by **30%** by integrating **FastAPI** to support real-time communication for IoT devices
- Built a scalable **mesh networking system** for **100+ IoT devices** to improve connection reliability and failover
- Implemented **Firebase-based RBAC** to secure APIs and reduce unauthorized access in production systems

PROJECTS

Insight to Impact – JPMorgan Chase Data for Good Hackathon 2025 | *Python, GeoPandas, TypeScript, Folium*
- Developed a client-facing **data dashboard** to clean, visualize, and present insights under a **35-hour** deadline
- Streamlined location-based expansion planning using a customized **Folium Geomap** for market analysis

NER Classifier – eBay EvalAI ML Hackathon | *Python, Hugging Face, Pandas*
- Engineered a **BERT-based NER model** to extract **28+ product attributes** from over **2M+ eBay listings**
- Handled **noisy text, misspellings**, and **multi-token entities** with a whitespace tokenization approach

StudyVerse – Tidal Winning Project 2025 | *Python, Three.js, JavaScript*
- Created a **VR-compatible AI assistant** that helps users study through personalized conversations
- Improved accessibility by building a **YouTube Video Transcriber** to extract and summarize key learning content

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Head of Corporate Relations Officer — Dec 2024 – Present
Aggie Artificial Intelligence Association — *College Station, TX*
- Led **3+ officers** to organize **5+ AI events** for **800+ members** and academic or corporate partners
- Secured collaborations with organizations such as **J.P. Morgan** and **Los Alamos National Lab**
- Hosted technical workshops on **ML deployment** and **Git collaboration** for over **50 students**