

# HUNTER MERRILL

Norman, OK  
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## EDUCATION

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**M.S. in Computer Science**, University of Oklahoma (Dual Degree) May 2027  
**B.S. in Computer Science**, University of Oklahoma May 2026

- Minors: Mathematics, Japanese
- GPA: **3.93/4.00**
- Coursework: Data Structures & Algorithms, Software Engineering, Machine Learning, Calculus, Linear Algebra

## TECHNICAL SKILLS

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**Programming Languages:** Java, SQL, JavaScript, Python, C++, R  
**Other Technologies:** Kubernetes, REST APIs, Azure, React, HTML/CSS, DuckDB, Docker, Flutter, scikit-learn

## WORK EXPERIENCE

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**Software Development Intern (Full Stack)** May 2025 — Present  
Data Institute for Societal Challenges

- Automate algorithms in **Python** and **C++**, pushing **700MB/s** string processing speeds in serial.
- Develop backend pipelines to transform **SQL** data into **JavaScript** charts to identify supply chain vulnerabilities.
- Create a dynamic web application with **HTML/CSS** frontend to streamline end-user data analysis.
- Reduced token usage by **73%** by isolating relevant text, slashing the LLM cost of a prompt-engineered NER pipeline.

**Mobile Development Intern** Jan — May 2025  
I-CCEW Software Business Accelerator

- Developed a startup Android app in **Flutter**, equipping first responders with a mobile safety net during emergencies.
- Applied OOP principles and design patterns to avoid redundancy, encapsulating 4 redundant scripts into 1 reusable class.

**Data Analytics Research Assistant** May — Dec 2024  
Moussa Lab

- Performed feature extraction using **RStudio** to deliver actionable steps for improving environmental awareness.
- Developed a novel Plotly visualization in **R** to show differential gene expression, helping search for genes linked to cancer.

**Lead IT Technician** Sep 2022 — Jan 2025  
OU IT Learning Spaces

- **Led a team of 6** technicians to solve problems campus-wide, achieving **over 95%** user satisfaction.

## PROJECTS & OTHER EXPERIENCE

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**Federal Aviation Administration Air Traffic Interface** Aug — Dec 2025

- Automated microservice scaling with **Docker** containerization and deployment via **Kubernetes**.
- Exposed a **GraphQL API** in **JavaScript** for service queries, enabling ATCs to monitor real-time near-space traffic.

**Speakapp Discord VC Text-to-Speech** Nov 2025 — Present

- Deployed a persistent **JavaScript (Node.js)** service that consumes a **REST API** and handles asynchronous events.
- Employed the **Python** Gemini API to clean text and convert it to audio, enabling users without mics to speak up.

**Data Synthesis for Equitable Alzheimer's Classification** Sep — Dec 2025

- Raised F1 by **11%** for **minority classes** by synthesizing data with a generative adversarial network (**GAN**).

**CANSec 2024 Central Area Networking and Security Capture-the-Flag** Oct 2024

- **1st of 29 teams** in a CTF competition cracking cybersecurity challenges (steganography, traffic analysis, ciphers).
- Strategized with teammates to divide and conquer problems while knowing when to move on or ask for help.

**Volunteer Barista** Second Wind Non-profit Coffeehouse Sep 2024 — May 2025

## HONORS & AWARDS

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**National Merit Scholarship** National Merit Scholarship Corporation  
**Tomorrow's Engineers Scholarship** Gallogly College of Engineering  
**Tau Beta Pi Honor Society** Oklahoma Alpha Chapter