Will Maberry

will-maberry | willmaberry.com

EDUCATION

The University of Texas at Arlington (UTA) Aug. 2022 - May 2026
B.S. in Computer Science *GPA*: 3.8+ (4x Dean's List)

Leadership Roles
Education Director for the Association of Computing Machinery (ACM)
HackUTA 7 (2025) Experience Officer
The Wesley Board of Directors' Student Representative and Lead Team Member

TECHNICAL SKILLS

Languages: Python, C, Java, Scala, Elm, JavaScript

ML / AI: TensorFlow, Keras, PyTorch, NumPy, Pandas

Full-Stack: FastAPI, Pydantic, Postman, OAuth2

Visualization: Matplotlib, Seaborn, GeoPandas, Folium

Software Tools: Maven, GDB, JUnit, GitHub Actions

Databases: SQLite, MySQL, MongoDB, SQLAlchemy

Web / Markup: HTML, CSS, LaTeX

Platforms: Windows, Ubuntu, Docker, Heroku

WORK EXPERIENCE

USDA ARS AI/ML Research Internship May 2025 – Present

- Develop geospatial pipelines for early detection of **Highly Pathogenic Avian Influenza (HPAI)** at the county–month scale, in partnership with **national program and research leaders**.
- Engineer ensemble models using imbalanced-learning and gradient boosting, achieving **80%+ balanced accuracy** on 2022–2024 datasets.
- Design rolling monthly forecasts with lagged environmental indicators to enable **proactive, county-level risk prediction**.
- Build **end-to-end Python pipelines** for data wrangling, spatial analysis, modeling, tuning, and interpretability.

OpenAI Engagement Manager Jul. 2024 - Present

- Curate and execute engagement initiatives for **135,000+ OpenAI users** worldwide, including conducting interviews, organizing events, and creating newsletters.
- Analyze KPIs and gather community feedback to optimize engagement strategies, resulting in a **120+% increase in engagement in the first 6 months**.
- Collect and analyze user feedback to shape product direction, ensuring OpenAI's engagement strategies align with user needs and expectations.

OpenAI Community Volunteer Sep. 2022 - Jul. 2024

CSE 3320 Operating Systems Teaching Assistant Jan 2025 - May 2025

- Instruct **120 students** in key OS concepts including deadlocks, job scheduling, and memory management.
- Selected as **2nd-ever undergraduate TA in 14 years**, personally recommended by faculty.
- Guided students through hands-on projects including **shell creation, multithreading**, and custom `malloc()` implementations.

PROJECTS

American Sign Language (ASL) Detector in Python

- Created a dataset with OpenCV and MediaPipe, collecting **2000+ ASL samples** to train a neural network model.
- Assembled the model using TensorFlow, achieving **90+% accuracy** in detecting ASL letters from live video.
- Incorporated multi-threading to run video, predictions, and Text-to-Speech in parallel, ensuring real-time interpretation.

Algorithm Learning Platform in Elm

- Designed a **user-friendly educational platform** to visualize commonly taught algorithms and data structures.
- **Actively used by UT-Arlington faculty** in lectures to enhance teaching and improve student comprehension.
- Visualized **23 algorithms and data structures** for dynamic, step-by-step walkthroughs.