

Olivia Reiter

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EXPERIENCE & LEADERSHIP

MakeX Lab | Florida State University

January 2026 – September 2026

Research Assistant

- Independently led **8 in-lab user study sessions** for a defect-aware interactive workbench that supports woodworking with reclaimed lumber. Facilitated think-aloud build tasks, administered pre/post questionnaires, and conducted semi-structured interviews.
- Designed a **qualitative codebook** mapping participant behavior to the study's research claims and hypotheses, and coded session recordings in **ATLAS.ti** to measure defect-detection performance for a forthcoming research paper.
- Built a local **transcription pipeline** with Whisper (mlx-whisper) to process study recordings for analysis.
- Prototyped sensor housing and physical components in Onshape, translating interview findings into concrete design features.

Florida State University | Tallahassee, FL

August 2026 – Present

Teaching Assistant, COP 3330 Object-Oriented Programming

- Leading a weekly recitation of students, independently designing **slide decks and live coding demos** on C++ class design, compilation and linking, makefiles, and debugging.
- Holding weekly office hours helping students debug C++ programs and work in the Unix/Linux development environment.
- Tailoring instruction for students coming from different prerequisite courses, adding **foundational Unix and g++ walkthroughs** for those without prior command-line experience.

PROJECTS

Misophonia-Aware Noise Cancellation | M.S. Project

August 2026 – Present

- Developing a **mobile app** that lets people with misophonia select their personal trigger sounds (e.g., chewing, tapping) so noise-canceling headphones can **detect and suppress them in real time** while leaving other audio intact.
- Scoping a **machine learning** approach under faculty supervision, planning a **Python/PyTorch** sound-detection model and **React Native** companion app that build on prior research in semantic hearing and target sound extraction.

Formula 1 Race Winner Predictor | Course: Software Engineering Capstone

January 2026 – April 2026

- Simulated race outcomes and 2026 championship standings by accounting for complex variables like real-time weather and new hybrid power unit regulations.
- Developed a **FastAPI and PostgreSQL backend** to synchronize Ergast and OpenF1 APIs with a Python ML pipeline using regression models to analyze tire compounds and pit-stop strategies.
- Delivered a **Strategy Simulator** that outputs confidence scores and predictive standings with high data integrity and scalable performance.

Fraudulent Sales Detection System | Course: Database Systems

August 2025 – December 2025

- Addressed declining customer trust caused by an influx of counterfeit items and fraudulent review patterns on e-commerce platforms.
- Developed a **Temporal Graph Network (TGN)** using Python and PyTorch featuring Transformer convolutional layers, a custom time encoder, and an NLP pipeline (TF-IDF/Logistic Regression) to detect evolving review “bursts” and assign suspiciousness scores to bot activity.
- Achieved **60.91% accuracy**, outperforming the static baseline by **26.33%**, and established a scalable real-time behavioral clustering pipeline to flag emerging scams.

EDUCATION

Florida State University | Tallahassee, FL

M.S. in Computer Science (Project Track) | GPA: 3.94

Expected: May 2027

- **Relevant Coursework:** Computer Architecture, Databases, Data Science, Artificial Intelligence, Data Mining

B.S. in Computer Science, Minor in Spanish | GPA: 3.8 | Honors Program

May 2026

- **Leadership:** Secretary, Thrift Club | Social Chair, Women in Computer Science

SKILLS

Languages: C++ | C# | C | Assembly | Python | SQL | JavaScript | Go

Web/Framework: React | Flask | FastAPI | HTML | CSS | RESTful APIs | PyTorch | Matplotlib | Faker | MAUI

Databases: Relational Database Design/Management | SQLite3 | PostgreSQL | MySQL

Spoken Languages: English (native) | Spanish (intermediate) | Arabic (elementary)