

## Katherine (Katie) Hammer

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### Summary

Entry-level data analyst with a computer science background, hands-on experience evaluating machine learning models, and strong skills in Python, statistical reasoning, and data exploration. Interested in using data to identify patterns, improve decision-making, and build efficient systems. Open to roles in analytics, data science, or ML-adjacent product work; relocation flexible.

### Education

North Carolina State University — Bachelor of Science in Computer Science

Graduation: May 2025

**Relevant Coursework:** Statistics, Linear Algebra, Data Structures, Software Engineering, Operating Systems, Functional Programming, Senior Design, Technical Writing, Self-Driving Cars, Privacy in the Digital Age

### Academic Projects:

- **Senior Design Capstone:** Led development of an interactive visual novel system for a behavioral research nonprofit using Ren'Py and Twine; implemented branching narrative logic and CDD data visualization for behavioral analysis.
- **Autonomous Vehicle Computer Vision:** Built lane detection and obstacle avoidance pipelines using ROS2, OpenCV, and Teensy microcontroller integration.
- **NC Zoo IoT Habitat System:** Developed automated sensor-driven habitat controls for mouse lemurs, integrating environmental data for real-time decision-making.
- **Additional Software Projects:** Created graph algorithms, scheduling tools, and interactive applications across Python, Java, and JavaScript.

### Work Experience

#### **Generative AI Quality Rater**

Outlier AI

**Aug 2024 – May 2025**

- Reviewed AI model outputs to assess quality and consistency, identifying patterns of errors across large datasets.
- Applied structured evaluation methods across large datasets to find error patterns and suggest improvements.
- Documented findings to support model optimization and enhance reliability of natural language generation.

#### **Summer Research Assistant- AI & Prompt Engineering**

**May 2024 – July 2024**

University College Dublin

- Conducted experiments on AI prompting strategies to evaluate reasoning, prediction, and code translation.
- Analyzed model errors and one-shot prompt performance to improve AI debugging and analysis workflows.
- Coauthored IEEE publication: *Scientific Discovery with ChatGPT: Anthropomorphism, Extrapolation, and Promoting Strategies*, IEEE, 2024. Link: <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=11176024>

#### **Summer Coding Teacher**

**May 2023 – Aug 2023**

The Coder School

- Designed and taught programming fundamentals using Python and Scratch, adapting content to different student skill levels
- Created engaging project-based lessons to teach basic game development concepts
- Mentored students in problem-solving strategies and debugging techniques

### Achievements/Activities

ACT WorkKeys Test- Platinum ranking

NCSU Dean's List

Intramural Soccer/Kickball

**Spring 2020**

**Fall 2021 - Spring 2025**

**Spring 2023-Fall 2025**

### Technical Skills

**Programming & Data:** Python, SQL, Java, C, JavaScript, HTML/CSS, Scheme, Scratch

**Machine Learning & AI:** Prompt engineering, evaluation frameworks, model reasoning assessment

**Frameworks & Tools:** React, ROS2, Ren'Py, Git, Docker, Jenkins, VS Code, Eclipse, JUnit, UML, MVC Architecture, AutoCAD

**Hardware & Systems:** Embedded systems (Teensy), circuit design, 3D printing

**Interests / Focus Areas:** Data science, product development, UX design