Andrew Morgan

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EDUCATION:

University of North Carolina at Charlotte (UNCC) | Anticipated Graduation: May 2026

Bachelor of Science in Computer Science, Minor in Math | **Concentration**: Artificial Intelligence | **GPA**: 4.00

Honors: Member of College of Computing Honors College, Chancellor's List: Fall '23/Spring '24

Relevant Courses: Data Structures and Algorithms, Intro to Computer Systems, Intro to Artificial Intelligence, Intro to Probability and Statistics, Matrices/Linear Algebra, Intro to Machine Learning (Spring 2025)

TECHNICAL SKILLS:

Languages/Technologies: Python, Java, C, Scikit-Learn, NumPy, pandas, Angular, HTML, CSS, TypeScript, Unix CL

Interests/Proficiencies: Machine learning/AI, natural language processing, OOP/software development, web development using Angular, Git/GitHub, VSCode/JetBrains IDEs

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WORK EXPERIENCE:

Undergraduate Researcher

University of North Carolina at Charlotte Jun 2024 - Present

- Conducting comparative research into the performance of two competing resource-efficient methods of multi-label text classification: a fine-tuned SetFit model and zero-shot prompted GPT-4o.
- Using the NumPy and pandas libraries, scikit-learn, OpenAI's API, and Hugging Face's SetFit framework with training datasets of student feedback responses from a software engineering course at UNCC, where the task is to classify each reflection with one or more common student struggles.
- Gaining experience with large-scale dataset preprocessing in constructing the training/testing datasets from our raw student feedback response data.
- Provided insight into multi-label text classification in low-resource environments using consumer-grade hardware, finding that zero-shot prompting using GPT-4o slightly outperforms a ~30M parameter SetFit model (all-MiniLM-L12-v2) on macro-average F1. Research poster available on LinkedIn/GitHub.
- Demonstrating a strong work ethic and effective communication skills with fellow researchers.

PERSONAL PROJECTS:

Web Scraper/Search App May 2024

- Created a Java app that scrapes HTML from the UNCC dining hall website using Java's HTTPClient.
- Experimented with improving the user's experience in searching dining hall menu information.
- Utilized material learned in Data Structures and Algorithms.

JSON Retrieval and Parsing Tool Jun 2023

- Created a Java app to retrieve JSON data from an API to generate JavaScript for an RPG web app, Kobold Helper.

Project Showcase/Personal Website Present

- Building a personal website using the Angular JavaScript framework, including Bootstrap CSS, to showcase my projects.