James Warren

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TECHNICAL SKILLS

- **Programming Languages:** Java, Python, SQL, C, C++, Bash, HTML, CSS, JavaScript
- **Technologies:** PyTorch, Scikit-Learn, MatPlotLib, Pandas, NumPy, Github, Linux, MySQL, Docker

EXPERIENCE

Undergraduate Teaching Assistant Athens, Georgia
University of Georgia January 2025 - Cur

- Held office hours to explain foundational object-oriented Java based programming concepts and programming assignments to reinforce key class concepts and improve coding ability of students.
- Collaborated with the professor to assess 100+ students submissions using grading scripts, personally developed rubrics, and analysis of programming submissions in a Linux environment.
- Communicated with students and faculty via email and Microsoft Teams planner to resolve grading disputes and clarify policies in a professional manner to resolve student concerns.
- Worked to expand autograding script functions to all assignments and eliminate long standing bugs.

PROJECTS

Share Your Recipes May 2025

- Developed backend services using Spring Boot for a recipe sharing platform with secure login to allow the user to create and follow accounts as well as the creation, rating, reviewing, and searching of recipes.
- Use Java prepared statements to query a MySQL database hosted in a docker container to gather and display data across multiple pages depending on user needs in a collaborative team project.

Classify Adversarial Images April 2025

- Implemented a convolutional neural network (CNN) in PyTorch on the MNIST dataset and generated adversarial examples using FGSM, DeepFool, Carlini & Wagner, and random noise.
- Constructed binary and multiclass datasets by combining MNIST samples with adversarial images, relabeled the data using Pandas, and visualized both the images and model output probabilities with MatPlotLib.
- Trained logistic regression, k-means, random forest, and CNN models on both dataset types to detect adversarial examples, and evaluated performance using accuracy and confusion matrices across 5-fold cross-validation.

Distributed File Transfer Protocol February 2025

- Built a multithreaded client-server architecture supporting concurrent connections, disconnections, and file operations, ensuring safe access with semaphores and mutex locks.
- Implemented TCP socket communication with separate execution and termination threads across distinct ports to enable stable connections and background operations.

Coordinate Based Weather Information App May 2023

- Queried two separate APIs where parsing the JSON information of the first API yielded the data necessary to properly query the second to learn information about the desired city such as weather, altitude, and location.
- Processed the final API JSON response into a simple but friendly javaFX app for users to view.

EDUCATION

University of Georgia Athens, Georgia
Bachelor of Science in Computer Science December 2025
Minor of Science in Cognitive Science GPA: 3.70/4.00
Area of Emphasis Computer Systems

CERTIFICATIONS & AWARDS

UGA Undergraduate Certificate in Applied Data Science December 2025
UGA Undergraduate Certificate in Cybersecurity December 2025
AWS Certified Cloud Practitioner September 2025
Google Cybersecurity Professional Certificate April 2025
Zell Miller Recipient August 2022 - Current