Riley Hansen

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EDUCATION

University of Georgia, Athens, GA   Spring 2025
Bachelor of Sciences in Computer Science with Minor in Mathematics   *Athens, GA*
GPA: 3.5/4.0
- **Area of Emphasis**: Artificial Intelligence
- **Relevant Coursework**: Linear Algebra, Algorithms, Data Structures, Database Management

CERTIFICATIONS & SKILLS

Certificates: Microsoft Azure Fundamentals, Google: Cybersecurity, University of Georgia: Applied Data Science
Technical Skills: Applied Math, Full-Stack Development, Gen-AI/ML, Cloud Computing, Data Engineering

PROFESSIONAL EXPERIENCE

Terma Group   May 2025 – Present
Software Engineering Intern   *Athens, GA*
- Independently developed Terma Copilot, an internal chatbot for Terma Employees.
- Worked with other interns to create an automated unit testing pipeline for embedded systems.
- Pitched a business case to management for a $48,000 AI workstation and was added to Summers' budget.
- Accepted an internship extension at the end of August, currently training the LLM on internal data.

University of Georgia   Aug 2023 – May 2025
IT Help Desk Associate   *Athens, GA*
- Diagnosed and troubleshooted classroom-related issues for students and teachers in class.
- Fixed hardware and software issues on Cameras, MacBooks, iPads, and a variety of other devices.
- Utilized disk cloning and imaging software to facilitate efficient system setups, enabling deployment of the UGA EITS network configurations across multiple computers.

CastlePoint Investments   May 2024 – Nov 2024
Full-Stack Intern   *Atlanta, GA*
- Reconstructed the company website utilizing React JS, improving website performance and stability.
- Designed and presented six interactive website prototypes made in Figma.
- Researched the EDGAR SEC database to make a page to list recent insider trading reports.

PROJECT EXPERIENCE

Terma Copilot
- On-premises AI Chatbot made with a React JS frontend, FastAPI backend, and LLM Triton Server.
- The LLM averages 120 words a second, and the FastAPI can handle over 290 connections at once.
- Added a RAG-per-user file system with PostgreSQL and PGvector, which gives the AI access to user files.
- Added tool calling and provided the LLM with Confluence, Bitbucket, and Jira-related tools via MCP.

S&P500 Web-Scraper
- Used Node.js to scrape S&P500 stock statistics from slickcharts.com recursively.
- Scrapes all 500+ SPY stocks with a .59-second runtime. The web scraper can scrape other stock indexes.
- The metrics can be used in financial models to determine which stocks outperform others.

Face Detection Model Performance Analysis
- Trained face detection models and compared relevant metrics for each model. (YOLO, MCTNN, HCC)
- The face detection models were trained on the WIDERFACE dataset with an 80/20 data split.
- YOLO was the fastest, and it had an accuracy of 92%, compared to 87% for MCTNN and 89% for HCC.

AI Tutor
- Built a voice-enabled tutoring application using React, FastAPI, and speech recognition API's.
- Implemented real-time speech-to-text and text-to-speech processing for conversational learning.

LANGUAGES

Python, C++, Java, JavaScript, MySQL, PostgreSQL, Assembly