Henry Starr

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• AI & Data Science

• Networks

• WebApp Dev.

□ github.com/henstarr

Education

University of Maryland

Bachelor of Science in Computer Science, GPA 3.84

Coursework

- Discrete Math
- Systems
- Linear Algebra

Experience

AMD

Artificial Intelligence Intern, June 2024 – August 2024

• Algorithms

• Data Structures

OOP

- Developed full-stack chatbot using Angular, leveraging MongoDB to store AI-user conversations and integrating chain-of-thought internal large language models (LLMs) to enhance conversational capabilities and user interaction.
- Developed a predictive system using Generative AI to identify potential test errors by extracting features from over 20,000 x86 assembly logs and JIRA tickets, generating x86 code with 90% accuracy, which significantly improved data quality and enhanced machine learning model performance.
- Implemented web scraping framework via Node is to automate and populate internal checklists, streamlining data collection and verification processes.

Software Infrastructure Intern, June 2023 – August 2023

- Managed version control and environment configuration, ensuring compatibility for hundreds of CPU employees.
- Collaborated on team-wide automation of HTML generation from verification logs using cron scheduling.
- Researched and implemented predictive AI to automate the tool promotion workflow, significantly improving team productivity.

FIRE: The First-Year Innovation and Research Experience

Undergraduate AI Research Assistant w/ Dr. Alexandra L. Jones

- Extracted, preprocessed, and clustered training data from NASA GLOBE images for advanced AI model development.
- Leveraged Python and TensorFlow to develop a predictive model, achieving an 83% accuracy rate in identifying cloud obstructions, as demonstrated by a detailed confusion matrix analysis.
- Collaborated on a research project and presented results to hundreds of faculty at UMD undergraduate symposium.

Projects

Unix Shell Emulator $\mid C$, Unix

- Used C to Emulate a shell in the Unix environment. Capable of performing both unix and shell commands.
- Implements piping, exec, subshells, conjunctions, I/O, forking, and process management to execute user commands.

MicroCaml: Dynamically Typed Ocaml | Ocaml, Lexers & Parsers

- Recreated Ocaml as a dynamically typed language via implementing a lexer, parser, and interpreter.
- Utilized LL(1) recursive descent parser to create MicroCaml parser.

Sentiment Analyzer | BERT LLM, Django, Python, Tailwind CSS

- Developed a user-friendly web interface with real-time sentiment analysis display and visual feedback for sentiment intensity using Django, Bootstrap, and HTML/CSS.
- Implemented a process to tokenize individual words, perform sentence embedding, and analyze each token's sentiment separately using BERT llm model, and aggregate the results to determine the overall sentiment of the sentence.

Technical Skills

Languages: Python, Java, C, Ruby, OCaml, Rust, HTML/CSS, Javascript/Typescript, Kotlin, XML Developer Tools: VS Code, Eclipse, Google Colab, Gvim, Agile, Android Studio Technologies/Frameworks: Linux, Perforce, Git, Node. js, FastAPI, MongoDB, Puppeteer, Dataiku, Docker, Firebase

Other / Extracurricular

Boy Scouts of America Eagle Scout

2012 - 2021

December 2022

April 2023

April 2024

College Park, Maryland

August 2021 – December 2022

Statistics Android Dev.

• Network Security

September 2021 – May 2025

College Park, Maryland

June 2023 – August 2024

Boxborough, Massachusetts