Ashu Sangar

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EDUCATION

University of Pittsburgh
BS in Computer Science and Minor in Statistics
Clubs and Coursework: Computer Science Club, Data Structures & Algorithms + Object Oriented Programming, Computer Assembly Language, Web Design, Software Engineering, System Software, Operating Systems, Computer Graphics, and Natural Language Processing.

Experience

Neuraville ***January - April 2025***
Software Engineer

- Optimized performance of the FEAGI-Blender integration by improving real-time data handling, resulting in smoother and more responsive animations.
- Developed Python scripts and utilities to dynamically generate JSON configurations from complex rig structures, significantly reducing manual configuration efforts.
- Identified and resolved critical bottlenecks in pipelines, achieving system responsiveness and scalability.
- Contributed to open-source repositories, utilizing Git version control, pull requests, code reviews, and continuous integration workflows.

Outlier AI ***April - December 2024***
Prompt Engineer

- Developed and optimized prompts to evaluate AI-generated responses, focusing on accuracy and contextual relevance.
- Designed complex prompts to stress-test AI systems, uncovering vulnerabilities and guiding model enhancements.
- Analyzed response data to identify behavioral patterns, facilitating strategic refinements in AI training and development methodologies.

Personal Projects

Legal Precedent Retrieval System using NLP| *Python* ***April 2025***
Developed a natural language processing system to efficiently retrieve and rank relevant legal precedents from large-scale court case datasets. Compared traditional keyword-based retrieval (BM25) with advanced transformer-based methods (ColBERT/BERT), significantly improving precision and recall metrics. Built and evaluated citation networks ("gold labels") for approximately 59,000 Pennsylvania court cases to assess retrieval system performance and validate results.

Personalized Music Visualization For Spotify | *Next.js* ***June 2024***
Created an innovative web application leveraging Spotify's API to visualize users' top albums and artists dynamically. The platform features an interactive grid display of top albums, allowing users to explore their listening habits in a visually appealing format, with integrated functionalities for exporting visuals and enhancing social sharing capabilities across platforms.

SKILLS

Programming Languages: Java, Python (Pandas, Pygame, SQL), C, HTML, CSS, and JavaScript.
Software Development Lifecycle, Agile Methodologies, Problem Solving, Artificial Intelligence