ALWIN RAJKUMAR

Louisville, KY

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EDUCATION

Bachelor of Computer Science and Engineering, University of Louisville | Fall 2022 - May 2026
GPA: 3.3

Relevant Coursework: Data Structures and Algorithms, Discrete Structures, Embedded Systems.

SKILLS

Technical Skills: Python, C/C++, Flask, Java, MySQL, Git, Github, Ubuntu, Excel

EXPERIENCE

Undergraduate Research Assistant | Jan 2024 - Present
Leap Lab - University of Louisville | *Louisville, KY*

- Co-authored research paper titled "Expertise and Trust in GenAI," exploring first-year engineering students' trust in generative AI before and after course instruction. Contributed to discussions regarding scaling and usage of AI in classrooms.
- Managed data collection and analysis, utilizing Excel to sort and prepare data for the data pipeline, ensuring accurate and organized data flow throughout the research process.

PROJECTS

2D Retro Space Invaders Game in C++ and Raylib: Independently designed and developed a fully functional 2D Retro Space Invaders game in C++ using Raylib, without the use of game engines. Created all game mechanics, including collision detection, scoring systems, and game physics. You can try it here: https://github.com/alwnraj/Space-invaders

MLS Binary Search Algorithm: Developed a C++ program to sort MLS League soccer players by salary using a Binary Search Tree, processing data from a .csv file. The program optimized data retrieval and demonstrated expertise in algorithmic design and data management. You can try it here: https://github.com/alwnraj/MLS-binary-search

Real-Time Chat Application Development with Flask, Python, and Socket.IO: Designed and developed a website for a real-time chat application using Flask, Python, and Socket.IO. Enabled group chats with functionality for users to join different chat rooms using access codes. Integrated HTML, CSS, and Bootstrap to create a responsive and user-friendly interface. This project can be viewed at: https://github.com/alwnraj/chat-app

Classic Pong Game Development with Python and Pygame: Created a fully functional 2D Pong game using Python and the Pygame library. The game includes enhancements like dynamic ball speed and a central dashed line, delivering a retro gaming experience. You can try it here: https://github.com/alwnraj/pong

LEADERSHIP

Operations Vice President | July 2024 - Present
Speed School Student Council

- Served as a Student Government Association Senator, representing the Council's interests at a higher level.
- Authored and distributed a weekly newsletter reaching up to 3,000 engineering students, covering key events and updates within the engineering student community.
- Coordinated and approved all Council communications, ensuring professionalism and consistency.

Director of Council Infrastructure | May 2024 - July 2024
Speed School Student Council

- Oversee inventory and distribution of items and door codes, and coordinate reservations for meetings and events.
- Maintain the rules and publicity of the council office.