ALWIN RAJKUMAR

Louisville, KY

a0rajk01@louisville.edu ◇ github.com/alwnraj ◇ linkedin.com/in/alwinrajkumar

EDUCATION

Master of Science in Computer Science and Engineering, University of Louisville 2026 – Present

Bachelor of Computer Science and Engineering, University of Louisville Fall 2022 – May 2026

Relevant Coursework: Data Structures and Algorithms, Discrete Structures, Embedded Systems. GPA: 3.5

SKILLS

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

EXPERIENCE

Undergraduate Research Assistant Jan 2024 – Present

Louisville Automation and Robotics Research Institute *Louisville, KY*

- Developed computer vision algorithms (object classification, VSLAM, feature extraction) for drone ML systems using Python and PyTorch.
- Built, designed and deployed main AIMS lab website for Dr.Baidya.
- Awarded a grant under the Summer Research Opportunity Program (SROP) to conduct independent research and present findings through a research poster.

BFEA Program Ambassador & Mentor Jul 2025 – Jul 2025

University of Louisville *Louisville, KY*

- Mentored incoming engineering students in a two-week pre-college program (July 13–24)
- Facilitated team challenges, workshops, and social activities on and off campus
- Coordinated with staff to manage transitions and sustain program flow
- Supported setup, teardown, and daily operations (16 hrs) across classrooms, labs, residence halls, and off-site venues

Undergraduate Research Assistant Jan 2024 – Present

Leap Lab - University of Louisville *Louisville, KY*

- Co-authored "Expertise and Trust in GenAI," examining engineering students' trust in generative AI.
- 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 (C++, Raylib): Developed a fully functional Space Invaders game in C++ using Raylib, implementing collision detection, scoring, and game physics. Source Code: GitHub

AI Flashcard Generator (Typescript, Tailwind): Made a flashcard generator that leverages Google's Gemini to create flashcards from prompts, text, or PDFs. GitHub

Real-Time Chat App (Flask, Python, Socket.IO): Built a web-based real-time chat app with group chats and access code-based rooms, using Flask, Python, and Socket.IO. Source Code: GitHub

LEADERSHIP

Operations Vice President July 2024 – May 2025

Speed School Student Council

- Served as a Student Government Association Senator.
- Authored a weekly newsletter that reached 3,000 engineering students.
- Coordinated Council communications through minutes of meetings.