

# ALWIN RAJKUMAR

Louisville, KY

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## EDUCATION

**Bachelor of Computer Science and Engineering**, University of Louisville Fall 2022 - May 2026  
Relevant Coursework: Data Structures and Algorithms, Discrete Structures, Embedded Systems. GPA: 3.3

## 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  
Company Name *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.