# Justin Lopato

Austin, TX 78759 | (512) 661-8595 | jal30@rice.edu

## Education

**Rice University, George R. Brown School of Engineering - GPA: 3.82/4.00**                                    **Houston, TX**
Bachelor of Science in Computer Science, Minor in Business                                                    Expected May 2027

## Work Experience

**UT Austin CS Dept Summer Academies**                                                                          **Austin, TX**
*Program Assistant/Staff*                                                            May 2023 - July 2023, May 2024 - July 2024
- Supervised groups of 10 high-school students during week-long UTCS Computer Science Summer Academies
- Studied processes for each academy topic in advance in order to provide insightful guidance for academy participants
- Advised participants during programming exercises, helping them solve problems by giving tips on how to design code
- Academy topics covered include: Arduino Programming, Game Development, Graphics Programming, Robotics, and iOS Development

## Activities

**Rice Robotics Club**                                                                                          **Houston, TX**
*R&D Team Programming Co-Lead*                                                                           May 2024 - Present
- Worked with club leadership to plan ongoing year-long jumping quadruped robot project
- Researched methods for accomplishing the software needs of the robot, including gait generation, and inverse kinematics
- Developed testing code for first iteration of the quadruped robot leg, using ROS2 framework for program organization
- Currently assisting in running weekly R&D meetings by participating in planning meetings, accommodating new members, and recruiting new members

**Rice Computer Science Club**                                                                                  **Houston, TX**
*Member*                                                                                            September 2023 - Present
- Attended social events to immerse myself in the Rice University CS community
- Participated in mentorship program that matched me with an experienced senior CS major who provided career and academic support

## Projects

**Reinforcement Learning Jump Controller** (Isaac Sim, Python)                                                December 2024
- Created a web application for the Hackrice 2024 hackathon to match users with similar classes and personalities in order to encourage each other to get their work done
- Utilized OpenAI API in order to generate vector embeddings corresponding to user personality and coursework
- Learned to use websockets to facilitate live chat system between users that have been matched

**Motivibe Social Matching App** (Typescript, Express, Firebase, MongoDB)                                     September 2024
- Created a web application for the Hackrice 2024 hackathon to match users with similar classes and personalities in order to encourage each other to get their work done
- Utilized OpenAI API in order to generate vector embeddings corresponding to user personality and coursework
- Learned to use websockets to facilitate live chat system between users that have been matched

**Twitter Clone** (Typescript, Express, PostgreSQL)                                                               July 2024
- Created a web application to emulate the user experience of Twitter, including posts, social relationships, and authentication
- Utilized text embeddings of posts and dimension reduction techniques to create a live visualization of user's posts in relation to one another

## Awards

**Hispanic Scholarship Fund - Scholar & Scholarship Recipient**                                     June 2023, June 2024

**President's Honor Roll**                                                                                Fall Semester 2023

**Eagle Scout Award**                                                                                       October 2022