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## Mira Khan

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## EDUCATION

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University of Virginia, Bachelor of Science in Computer Science

Charlottesville, VA

GPA: 3.806

JUNE 2022 - MAY 2026

Relevant Coursework: Multivariable Calculus, Data Structures and Algorithms 1, Discrete Mathematics

Current Courses: Computer Systems and Organization 1, Data Structures and Algorithms 2, Software Development Essentials, Independent CS Research

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## SKILLS

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**Programming Languages:** Java · C# · Python · *Familiar with HTML, CSS, React Native*

**Technical:** Unity Game Engine · Linux/Ubuntu · ROS · Vicon · Machine Learning · Agile FDD · Git · Graphic Design

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## EXPERIENCE

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**LESS Lab Undergraduate Research Assistant**, University of Virginia

MAR 2023 - PRESENT

- Simulating realistic environments and navigation algorithms to improve drone trajectories in Unity (C#)
- Testing mixed-reality effectiveness by feeding drone video data from simulation for obstacle avoidance in reality
- Implementing an advanced neural network system enabling automated navigation through intricate virtual forests
- Github: [github.com/mlra-k/Safe-Trajectory-Simulation-Research](https://github.com/mlra-k/Safe-Trajectory-Simulation-Research)

**Undergraduate Teaching Assistant**, University of Virginia

- **CS 1112: Introduction to Programming**
- **APMA 1090: Single Variable Calculus I**
- **ENGR 1624: Intro to Engineering**

AUG 2023 - DEC 2023

JUNE 2023 - AUG 2023

AUG 2022 - DEC 2022

**Senior Capstone Project: Mocha's 8-Bit Adventure**

MAY 2022

- Developed story-rich platformer RPG demo about a lost dog's adventure to return home in Unity (C#)
- Integrated immersive features such as detailed graphics and fighting systems
- Playable demo: [mlra-k.github.io/mochas8bitadventure](https://mlra-k.github.io/mochas8bitadventure)

**Senior Research Project: Habit Rabbit**

SEPT 2021 - MAY 2022

- Targeted problem of motivation challenges by appealing through gamification of task management in Unity (C#)
- Incorporated extrinsic motivational factors and fun incentives including virtual pets and prizes
- Video demo: [mlra-k.github.io/habitrabbitdemo](https://mlra-k.github.io/habitrabbitdemo)

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## ORGANIZATIONS

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### A. James Clark Scholars Program

- Selected as a scholar to a competitive program dedicated to uplifting underrepresented students in engineering who exhibit strong academic and leadership potential
- Completed intensive summer semester prior to college, gaining credits in applied math and engineering classes
- Participated in weekly leadership seminars held by trailblazers in the field
- Anticipated semester abroad in Spain at the Technical University of Valencia

### Girls Who Code

- Partaking in a community dedicated to closing the gender gap in technology by uplifting women and non-binary individuals in computer science
- Engaging in workshops geared toward building skills in coding, problem-solving techniques, and professionalism
- Competing in hackathons throughout the year to build a strong foundation in teamwork and project management
- Providing mentorship to underclassmen and secondary students interested in the field of technology

### Out in STEM

- Advocating for the empowerment of LGBTQ+ individuals in STEM to succeed in the professional world
- Cultivating a supporting environment nurturing ideas of innovation and leadership