# Aidan Liu

703-420-9892     aidan2023liu@gmail.com     https://arti-dev.github.io/

## Education

**University of Virginia, School of Engineering and Applied Science**              *Expected May 2027*

BS, Major: Computer Science, Minor: Data Science, GPA: 3.884, CS GPA: 4.0

**Organizations**: First Year Players, Student Game Developers, Cavalier Autonomous Racing

**Relevant Coursework**: Data Structures and Algorithms 2, Intro to Cybersecurity, Computer Systems and Organization 2, Software Engineering, Defense Against the Dark Arts

## Experience & Volunteering

**Motion Planning Software Engineer**, Cavalier Autonomous Racing              *May 2025 – present*

- Joined CAR following its **2024 Indy Autonomous Challenge victory**
- Collaborated with a highly selective team to develop *cavsim*, an environment to test planning algorithms for our autonomous racecar primarily in C++, accelerating iteration cycles and reducing real-world testing risk.
- Traveled to Laguna Seca to support on-site testing at the Indy Autonomous Challenge in Summer 2025.

**Event Staff Student Manager**, University of Virginia Event Management              *January 2025 - present*

- Leading student staff and coordinating event logistics to support thousands of campus events each year.
- Facilitating day-to-day operations of the University's student hub through clear communication, problem-solving, and peer support.

## Projects

**Director of *Lucid Nightmares* 2D Platformer (Student Game Developers Club)**              *GDScript, Godot*

Developed a novel platformer with a team of 12 members where players navigate through dream-like environments by telekinetically manipulating the world around them. Designed and implemented 15+ unique gameplay features spread across 5 challenging levels and released the game on itch.io which received over 100 browser plays.

***Carpool Buddy* Rideshare Platform for University Organizations**              *Django, Python, Heroku*

Built a full-stack web application designed for university clubs to organize rideshares for events, including user profiles, messaging, and moderation tools. Served as the go-to development lead for a five-person team to debug complex issues, resolve Git merge conflicts, and support development and deployment using Django and Heroku.

***Fill in the Wall* Minecraft Game Server**              *Java, SpigotMC, MySQL, GitHub Actions*

Developed a Java multiplayer game plugin using object-oriented architecture and event-driven design, and automated continuous deployment of the game to a dedicated server using GitHub Actions.
Marketed a gameplay trailer on YouTube that received 270 views and 20 likes within one day.

## Honors and Certifications

**International Collegiate Programming Competition, Regional Competition**              *2023-2025*

Consistent top 10 placements out of ~90 teams across three years in team algorithmic programming competitions.

**Virginia Science Olympiad, State Competition**              *2022-2023*

Multiple top 5 placements including 1$^{st}$ place in Flight in 2023.

**First Tee Greater Washington, DC:** Jonathan Wildes Memorial Scholarship for $2,500              *2023*

**Tripoli Rocketry Association:** Level 1 High Power Certification              *2024*

## Skills

**Programming Languages/Tools:** Python, Java, HTML/CSS, GDScript, IntelliJ, WSL, GitHub Actions, SQL, C++

**Languages:** English, Chinese (Intermediate)