

# Mahatru Miryala

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## Education

**Georgia Institute of Technology**: Atlanta, GA

**Class of 2025**

- Biomedical Engineering BS, Computer Science AI Minor
- 4.00 GPA, Honors Program

## Experience

**Robomed Lab** - Research Assistant, Atlanta

**Sept 2023 - Present**

- Research and development of robotically steerable guidewires for endovascular and cardiovascular applications.
- Improved image distortion algorithm runtime by 92%, created and soldered PCBs for mechanism assembly for animal testing.

**Web Wizards Inc.** - Founder and Sole Developer, Boynton Beach

**March 2023 - Present**

- Proactively advertised to and engaged with local businesses, resulting in a 30% boost in customer conversion.
- Designed and launched websites with SEO and cybersecurity practices which boosted customer satisfaction by 42%.

**WEAR Lab** - Research Assistant, Orlando

**Feb 2022 - Aug 2022**

- Spearheaded research leveraging object recognition, hand-tracking, and LiDAR to empower mobility in blind people.
- Engineered Convolutional Neural Networks and Hidden Markov Models in revolutionary gesture-to-sound conversion for the military.

## Projects

[Parkinson's Detection Device](#) - Lead SDE

**Jan 2023 - May 2023**

- Led a team of 6 to develop an Arduino device that detects Parkinson's Disease early by tracking gait and uploading collected accelerometer and gyroscope data to website for machine learning analysis.
- Created website, databases via AWS, Arduino software, and AI model with TensorFlow.

[NASA L'SPACE Mission Concept Academy](#) - Astrobiologist

**Jan 2022 - April 2022**

- With the support of NASA engineers, my team developed and presented a 78-page mission document displaying our comprehensive overview on a mission we created: identifying lunar oxygen deposits. I designed logistics, systems, and protocols.

[HackGT 9](#) - Lead SDE

**Oct 2022**

- 1st place submission, led a team of 4 to create a website supporting wildlife conservation through hosting wildlife live-streams found around the web.
- Compiled streams from YouTube with a **JavaScript** web-scraper, and created an Ethereum-based cryptocurrency and NFT line.

[Congressional App Challenge](#) - 3D Modeler

**June 2020 - Oct 2020**

- To support climate change efforts, worked in a team using **Agile** methodologies to create a phone-based augmented reality app in **Unreal Engine 4** that visualizes future sea level rise at your location.
- Modeled the ocean and other sea-creatures to better visualize underwater scenes, downloadable on the Google Play Store.

[Trash Trek Challenge](#) - Lead Researcher

**2015-16**

- Led a team of 10 to win an FLL competition, personally researching a solution to clean orbital debris and programming our robot's tasks on the board.
- Collaborated with NASA scientists at JPL for validation of design. We concluded by passing a board of review at JPL offices.

## Extracurriculars and Leadership

**Georgia Tech Experimental Rocketry Club** - Member

**2023**

- Wrote low-level programs in C to to parse binary input from the rocket's external thermometer.

**India Club at Georgia Tech** - Board Member/Volunteer

**2022 - Present**

- Helped plan and host multiple cultural events with over 1000 participants.
- Created event materials for, marketed, and planned logistics of events while also running the events behind-the-scenes for their duration.

**BSA Troop 125** - Eagle Scout

**2014 - Present**

- Planned, developed, and led personal community service project which fundraised \$1,100, and oversaw 30+ volunteers over 180+ hours in the construction of a dog agility course to be used in a local veteran support dog-training program.
- Consistently elected to lead scouting activities and establishing a link of communication between adult leaders and the troop.
- Managed the troop website and its weekly email newsletter. Streamlined the process to ensure all parties were up to date.

## Skills

**Technology:** Java, C, C++, Python, HTML, CSS, JS, SQL, MATLAB, PHP, LaTeX

**Soft Skills:** Management, Written/Verbal Correspondence, Presentation, Negotiation, Optimization, Data Analytics