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   **Aug 2023 - Dec 2023**
- 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**
- Designed and launched websites with SEO and cybersecurity practices which boosted customer satisfaction by 42%.
- Proactively advertised to and engaged with local businesses, resulting in a 30% boost in customer conversion.

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

BME MedTech Hackathon - Team Lead   **Feb 2024**
- 1st place submission in the Occupational Therapy track, designing and manufacturing "The Cube", a device consisting of interchangeable faces with games to train fine motor skills in pediatric patients.
- Developed skills in **Fusion 360**, **Human-Guided Design Principles**, **Computer-Aided Design**, and **3D Printing**.

Parkinson's Detection Device - Lead Developer   **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.

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, Fusion360

Soft Skills: Management, Written/Verbal Correspondence, Presentation, Optimization, Data Analytics, Industrial Design