Mahatru Miryala

+1 (561) 425 3060   mahatrum@gmail.com

[LinkedIn](): mahatrum   [GitHub](): hedgybedgy

Education

Georgia Institute of Technology: Atlanta, GA | **Class of 2025**
- Biomedical Engineering BS, Industrial Design / Computer Science Minor
- 4.00 GPA, Honors Program

Experience

Spectaire - Test Engineering Intern, Boston | **June 2024 - Aug 2024**
- Developed Python and SQL software infrastructure via PostgreSQL to test units and save collected data to local database while standardizing code base and writing documentation and protocols to scale future software development work within the company
- Involved with assembly of product before shipment to clients, and hand delivering units to clients around the country as a representative of the company

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.
- Used 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.

Extracurriculars and Leadership

India Club at Georgia Tech - Board Member/Volunteer | **2022 - Present**
- Helped plan and host multiple cultural events with over 1000 participants and created event materials for, marketed, and planned logistics of events while also running them.

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