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

Web Wizards Inc. - Founder and Sole Developer, Boynton Beach **March 2022 - Present**
- Creating custom websites for local small to medium businesses with SEO optimization and security.

WEAR Lab - Research Assistant, Orlando **Feb 2022 - Aug 2022**
- Researched using object recognition, hand-tracking, and LiDAR-based indoor navigation to aid mobility in blind people.
- Developed Convolutional Neural Networks and Hidden Markov Models in gesture-to-sound conversion for the military.

Projects

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.

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.
- Personally created the website, including databases via AWS, and led development of Arduino programming and the AI model.

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.

Making a Neural Network to Predict The Spread of COVID - Sole Researcher **Mar 2020 - Nov 2020**
- Wrote a 3800 word paper on my use of **Python** to build and validate, to a high degree of accuracy, a neural network in predicting COVID cases and deaths on a national basis.

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 **2022-23**
- 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 **Mar 2014 - July 2021**
- 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. Employed my knowledge of programming to streamline the process and ensure all parties were up to date.

Skills

Certifications: Microsoft SQL Database Administration
Programming Languages: Java, C, C++, Python, HTML, CSS, JS, SQL, MATLAB, PHP, LaTeX
IT Constructs: OOPS, DSA, APIs, ML, MySQL, Data Analysis & Statistics, Cloud Computing, AWS & EC2