Mahatru Miryala

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LinkedIn   GitHub

EDUCATION

Georgia Institute of Technology: Atlanta, GA
   Biomedical Engineering, Computer Science
   4.0 GPA, Honors Program, Class of 2025

EXPERIENCE

Undergraduate Research Assistant - Dr. Joon-Hyuk Park (02/22 - 08/22) - 10 Hrs/Wk

- **Python** - contributed in researching object recognition, hand tracking in 3D space, and LiDAR-based indoor navigation to aid people with disabilities in navigating their environment
- Convolutional Neural Networks and Hidden Markov Models in gesture-to-sound conversion

PROJECTS

NASA L'SPACE Mission Concept Academy   **(01/22 - 04/22) - 10 Hrs/Wk**

- Worked with NASA engineers in a workforce development program, the goal was to design logistics and science for a lunar mission to identify oxygen deposits for future moon bases
- Served as the Astrobiologist on the science sub-team, developed and presented a 78 page Preliminary Design Review

Parkinson's Detection Device   **(01/23 - 05/23) - 13 Hrs/Wk**

- **Python, ML, AWS, SQL** - Working in a team of 6 to develop a device prototype for early PD detection
- Anklet bands that sense user's gait and offloads data to website for machine learning analysis

Eagle Scout Project   **2021**

- Planned, developed, and led a community service project which raised $1,100 and oversaw 30+ volunteers over 180+ hours to build a dog agility course for a veteran dog-training program

Trash Trek Challenge   **2015-16**

- Led the programming and project teams to win an FLL competition, presenting our solution to clean orbital debris and completing tasks on a board with our LEGO robot
- Collaborated with NASA scientists at JPL for review and approval

Flipper   **2022**

- **JavaScript** - Our 1st place Hackathon submission, a website focused on wildlife conservation
- Hosted a live-streaming service using a webscraper to compile wildlife streams around the web
- Created an Ethereum-based cryptocurrency and NFT line

IB Calculus IA   **2019**

- Calculated escape velocity, gravitational transfers, and other variables using calculus required for a trip to Mars using a Saturn V rocket

IB Extended Essay   **2020**

- **Python** - Built and tested a neural network to predict COVID cases and deaths on a regional basis

Sea The Future   **2020**

- **C++, APIs** - Submitted an augmented reality app in Unreal Engine 4 for the Congressional App Challenge

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

(HS) Boy Scouts - Eagle Scout, Historian, Webmaster, Assistant Patrol Leader

2022-23 GTXR - Member, wrote low-level C code for on-board temperature sensors for our 2-stage rocket

2022-23 ICGT - Board Member/Volunteer - Helped plan and host events with over 1000 participants