Mahatru Miryala

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Experience

Quality Engineer I - Arthrex, Santa Barbara **Oct 2025 - Current**
- Supported sustaining development of Electrosurgical Generators, Camera Consoles, and Tablet/Touch Screen Components in the Receiving Inspection, Global Service and Repair, and Manufacturing departments.
- Supported internal and external audits, wrote Work Instructions. Supported international product line setup in China.
- Worked across multiple cross-functional teams, building and relying on mechanical and electrical engineering knowledge to support the various systems.

Quality Engineer Intern - Arthrex, Santa Barbara **June 2025 - Oct 2025**
- Introduced **Agile** methodologies and worked with IT, developing business justifications to evaluate **Jira** and **Workfront** and roll out to support team workflows and improve project timelines. Also worked with Quality Control to inspect incoming parts.

Undergraduate Research Assistant - Coskun Lab, Atlanta **Jan 2025 - May 2025**
- Supported research into computer vision detection and visualization of disease progression in kidney tissues in both kidney tissue handling and imaging and data labeling for the ML model.

Test Engineer Intern - Spectaire, 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.

Undergraduate Research Assistant - Robomed Lab, 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.

Undergraduate Research Assistant - WEAR Lab, 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

Astroject, A NASA Senior Design Project - Project Manager **Aug 2024 - Dec 2024**
- NASA sponsored injectable system to deliver medication to astronauts through space suits without damaging integrity.
- Served as team's project manager to coordinate resources and efforts to make deadlines while also designing the device's systems.

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.

Education & Extracurriculars

Georgia Institute of Technology: Atlanta, GA **Class of 2025**
- Biomedical Engineering BS, Industrial Design Minor
- Graduated in the Honors Program With Research Distinction

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 establish a link of communication between adult leaders and the troop.

Skills

Technology: LaTeX, Fusion360, SolidWorks, P-CAD, GD&T, V&V, RCA, DMAIC, DFMEA, PFMEA, GMP, 6 Sigma
Soft Skills: Management, Written/Verbal Correspondence, Presentation, Optimization, Data Analytics, Industrial Design