Yashas Salankimatt

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Education

2019-2022 **Texas A&M University- College Station** GPA: 3.74
Bachelor of Science, Computer Engineering (Magna Cum Laude)
2022-2024 Master of Science, Computer Science, Specialization in Robotics

Work Experience

Founder and CEO, Proprio Robotics
May 2022 - Current
- Designed and built a robot arm with the same capabilities as robot arms that are 10x the cost
- Developing an API to allow coders to develop complex robotics solutions without a robotics background
- Raised $110k+ in pre-seed funding (proprioroboticsxyz)

Robotics Research Intern at Carnegie Mellon University, Biorobotics Lab
Jun 2022 – Aug 2022
- Developed on a hardware in loop (HIL) simulation system for uncooperative satellite docking systems
- Iterated on a bimanual test stand used to simulate spacecraft docking hardware for Northrop Grumman
- Implemented impedance matching algorithms on the HIL test stand for space physics simulation
- Improved the controllers, estimators, trajectory planning, and optimization systems for satellite docking

Software Engineer Intern at Troverlo
Jan 2022 – May 2022
- Programmed software to automate sensor tags configuration for production environments
- Developed methods to speed up sensor tag fabrication during prototype phases
- Fabricated prototype sensor tags and running test suite for proper operation before field testing

Undergraduate Researcher with Dr. Robin Murphy
Aug 2021 – May 2022
- Developed the next version of the Survivor Buddy robot for disaster relief, telepresence, telemedicine
- Modeled, fabricated, and assembled the mechanical assembly for the inexpensive robot system
- Designed and fabricated a custom PCB, wrote face tracking and pose matching code using OpenCV

Honors Undergraduate Research with Mr. Stavros Kalafatis
Aug 2021 – May 2022
- Programmed model to update indoor maps with new data on changes to environments
- Implementing the map revision system on a physical robot with LIDAR and an RGB-D camera
- Validated and tested above system, compared to other implementations, and wrote a thesis on my work

Leadership

TAMUhack, Hardware and Logistics Director
Mar 2020 – May 2022
- Recruiting sponsorships and maintaining sponsor relations for our hackathons
- Organizing logistics including prizes, venue, food, live streaming, scheduling, etc.

Awards

July 2022 - Z Fellow ($10,000 investment into my company and mentorship program)
April 2022 - Texas A&M Undergraduate Research Scholar
Mar 2021 - RowdyHacks 2021 Best Hardware Hack Winner
Feb 2020 - TAMUmake 2020 Hackathon 1st place & Accessibility Challenge Winner
Sep 2019 - Kurt Giessler Youth Achievement Ambition Grant Recipient
Jan 2019 - Brockman Scholarship Recipient (Full ride and cost of attendance scholarship)

Projects

Creating a Custom 7-Axis Robot Arm
April 2022
- Developed a 7-axis robot arm with a payload of 3kg, 800mm reach, and sub-mm repeatability for <$750
- Modeled and fabricated actuators, electrical system, firmware, sensor systems, and manipulator
- Created ROS interface and simulated arm for rapid iteration and ML training in simulation

Teddy, automated scheduling/planning for students
Aug 2021
- Developed a system to help students manage their work and classes by performing automated task planning, fitting around their existing calendars
- Implemented using React, React Native, Firebase, GCal API, Bootstrap

Creating a Custom, Inexpensive, Heavy Duty CNC Router
Dec 2020
- Designed and built a CNC router for $500 with the specs of $2K hobbyist machines
- Wrote a custom C firmware branching off of GRBL for smart control of the machine

Skills

Software Engineering - C++, Javascript, Python, Java, HTML/CSS, Typescript, React.js, React Native, Tailwind, Firebase
CE/MechE, Robotics - ROS, CAD Modeling, Finite Element Analysis, CNC Machining, Mapping and Localization Systems, TensorFlow, Microcontroller Design, Integrated and General Circuit Design