# Yashas Salankimatt

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in/yashas-s

GPA: 3.70

# Education

2019-2022

# **Texas A&M University- College Station**

Bachelor of Science, Computer Engineering (Minor: Mathematics)

# Work Experience

### Software Engineer Intern at Troverlo

Jan 2021 - Current

- o Programming software to automate sensor tags configuration for production environments
- o Developing methods to speed up sensor tag fabrication during prototype phases
- o Fabricating prototype sensor tags and running test suite for proper operation before field testing

#### Undergraduate Researcher with Dr. Robin Murphy

Aug 2021 - Current

- o Contributing to the NSF and Microsoft Research backed Survivor Buddy project
- o Designing new iterations of the Survivor Buddy hardware and electronics for disaster relief
- o Developing a moving and environment mapping platform for Survivor Buddy base for telemedicine use

### Honors Undergraduate Research Thesis with Mr. Stavros Kalafatis

- Creating a system to localize a robotic system based on landmarks, filtering out everyday changes to indoor environments
- Aug 2021 Current o P
- o Programming a model to update pre-existing indoor maps with new data on changes to indoor environments such as doors or furniture moving
  - o Implementing the above systems on a physical robot with LIDAR and an RGB-D camera, making use of ROS and the Gazebo simulator to quickly iterate on the localization models

#### **Engineering Incubator Founder**

Dec 2019 - Current

- o Founder in the engineering-based business incubator at A&M working on my own startup
- o Developing an inexpensive robotic arm to automate part inspection for job shops
- o Conducted market analyses, customer interviews, and analyzed business feasibility

# Leadership

# TAMUhack, Hardware and Logistics Director

Mar 2020 - Current

- o Recruiting sponsorships and maintaining sponsor relations for our hackathons
- o Organizing logistics including prizes, venue, food, live streaming, scheduling, etc.

#### **TAMUmake, Tech/Hardware Director**

May 2020 - Aug 2021

- o Assessed hacker needs, created hardware care packages for students for our hardware hackathon
- o Created hardware focused workshops and learning content for other students

### **Awards**

Sep 2021 o Texas A&M Undergraduate Research Scholar

Mar 2021 o RowdyHacks 2021 Best Hardware Hack Winner

Feb 2021 o Hacklahoma 2021 Best Hardware Hack Winner

Feb 2020 o TAMUmake 2020 1st place & Accessibility Challenge Winner

Sep 2019 o Kurt Giessler Youth Achievement Ambition Grant Recipient

Jan 2019 o Brockman Scholarship Recipient (Full ride and cost of attendance scholarship)

# **Projects**

# 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
- $_{\circ}\,$  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
- o Wrote a custom C firmware branching off of GRBL for smart control of the machine

### System to Track Body Kinematics Without Using Cameras

Aug 2019

- o Used IMUs to create a cheap system to accurately track body motion w/out cameras
- o Implemented and configured a rudimentary Kalman filter; Performed signal processing and custom packet manipulation to increase performance of system

### Skills

Software Engineering CE/MechE, Robotics

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