

RISHAB SESHADRI

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EDUCATION:

UNIVERSITY OF GEORGIA, FRANKLIN COLLEGE OF ARTS & SCIENCES

AUGUST 2022 – EXPECTED MAY 2026

B.S. IN COMPUTER SCIENCE & B.S. IN MATHEMATICS

- Emphasis in Software Engineering & Applied Mathematics
- GPA: 3.92 / 4.00

TECHNICAL SKILLS:

LANGUAGES: *Java, Python, JavaScript, HTML/CSS, C, C++*

OPERATING SYSTEMS: *Windows, MacOS, Linux (Fedora, Kali), Unix*

UTILITIES: *Git, SceneBuilder, EmacsJavaFX, PyQt6, Ampache, OpenCV, Node-MAVLink, MariaDB*

WORK EXPERIENCE:

SOFTWARE DEVELOPER, ADIYE

APRIL 2023 – PRESENT

- Access, interact with, and convert the Ampache 5 Python API to a more robust and relevant JavaScript API
- Develop user data storage using MariaDB along with an ExpressJS API for global access to user settings
- Design the backend software and data handlers for a South India-focused audio production and streaming application

LEAD BACKEND DEVELOPER, IVUE: WORLDS IVUE

MAY 2023 – AUGUST 2023

- Program in JavaScript to read, interpret, and write to iVue drones using a PixHawk flight controller
- Lead the group of backend developers to build the Worlds iVue drone control software
- Work with front-end development team to connect the packet interactions with the visual half of the application

INTERN DEVELOPER, GEORGIA STATE UNIVERSITY

MAY 2020 – AUGUST 2020

- Assisted in the planning of a project with Professor Ashwin Ashok and other students at GSU to improve AI-based object detection in cars to detect and avoid crashes
- Worked with the team to develop a smaller model of a real-life environment to test a model car
- Sketched and built the models necessary for testing the car with all road signs and environments necessary

PROJECT EXPERIENCE:

THE INREEL: PASTEVEN

JANUARY 2023 – PRESENT

- PyQt6 based application designed to be an elevated drawing application with additional features that are not commercially available and customizable – current work in progress
- Current goals: Improve features such as border detection and continue developing from list

GRISELDA MIXBOARD

AUGUST 2022 – PRESENT

- JavaFX based application that allows a user to record and upload audio clips, connecting each clip with a key on the keyboard to allow for real-time playing, beat mixing, and more
- Current goals: add an equalizer to the audio clips as well as a trim feature

EXTRA CURRICULAR EXPERIENCE:

COMPUTER VISION TEAM LEAD, UGA ROBOTICS: ROBODAWG

AUGUST 2023 – PRESENT

- Model, build, and program a robotic dog inspired by Boston Dynamics' Spot, tasked with security and facial recognition of club & team members
- Lead the CV side of the software team, working in Python and C++ with the OpenCV library to allow members into the lab using their faces

UNDERGRADUATE RESEARCHER, PROSTHETICS WITH DR. JOHNSEN

AUGUST 2022 – PRESENT

- Research the use of EMG sensors to map a virtual arm to real muscles, furthering the team's research in prosthetics
- Previously with the UGA Robotics Prosthetic team, work with Dynamixel motors in C and Java to create PID, path-finding, and other algorithms to mimic the human hand on a physical robotic arm
- Design solutions to maximize efficiency in storage and in processing speed on the Arduino board

DRIVETRAIN PROGRAMMER, UGA ROBOTICS: IEEE

AUGUST 2022 - PRESENT

- Build and program a robot to compete in the Institute of Electrical and Electronics Engineers Southeast Conference
- Implement programs in Python and Java such as a pathfinding algorithm, object detection, and collection systems for field elements
- Plan and 3D model robot, research necessary documentation, and directly process motor input with an Ubuntu system using a Raspberry Pi 4

MENTOR, FRC AND FTC ROBOTICS

APRIL 2016 – PRESENT

- As co-president (2021-22), lead and manage 60+ members at Alpharetta Robotics and its 4 teams, seeking sponsorships, organizing events
- Work with the club's financial board to keep teams well-funded and running by finding sponsorships, budgeting, and maximum funding
- As mentor, assisting members with programming (Java with FTCLib, object detection and PID system), electrical, and mechanical training