Arun Jayaraman

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SUMMARY

I have dual undergraduate degrees in Computer Science and Mathematics with my main expertise in software/hardware integration for robotics/automation applications. I have had a summer internship at Microsoft teaching Python programming and am a senior member of my college robotics team. My main proven expertise is in developing distributed GUI-based systems under ROS (Robotic Operating System). I am seeking a growth-oriented position that will utilize my extensive skills in software development and mathematics for automated systems and processes.

EDUCATION

Masters of Science	Robotics	Wayne State University	GPA: 4.00 (May 2023)
Bachelors of Science	Computer Science	Wayne State University	GPA: 3.97 (Aug 2022)
Bachelors of Science	Mathematics	Wayne State University	GPA: 3.97 (Aug 2022)

Skills: Robot Operating System (ROS), C++, Python, R, Java, SQL, C#, HTML/CSS/JS, React.js, Bash, Software Applications: Git/GitHub, Blender 3D, Unity, LaTeX, Gazebo, RViz

EXPERIENCE

- DCS Corporation through Actalent, Computer Engineer (08/2022 – Present):
    - Ran simulations using Unreal Engine 4
    - Used virtual machines to communicate ROS information through the network
- Wayne State University, Teaching Assistant, Computer Science (01/2022 – 05/2022):
    - Lead lab sections that total 60 students to instruct and assist them in completing lab assignments in C++
    - Organized meetings with graders and other assistants to develop new teaching plans and improve the learning experience for students
- Wayne State University, Robotics Team. Lead for ROS Simulation and Software Interface
    - Competed in the International Ground-Based Vehicle Competition (IGVC). Team won 4th place in the design competition out of 22 teams (June 2022)
    - Modified robot description files to configure sensors and robot model using Gazebo and Rviz
    - Edited scripts to send GPS information to NTRIP servers to get correction data
    - Utilized PyQt to create an extensive GUI to execute ROS commands to activate robot components and visualize activity status
- Microsoft/ Quicken Loans, Summer Internship (06/2020 – 09/2020):
    - Guided high school students in Detroit Public Schools in a 6-week program towards constructing a program oriented around stock data manipulation in Python
    - Worked in a team with 6 other coaches to coordinate meetings and organize professional development workshops for the students

RELEVANT PROJECTS

- *College Class Scheduler*: Constructed a program to maximize the number of college classes for a schedule without time conflicts. Used Python, Tkinter, React with a CSS preprocessor SASS
- *Robot Graphical User Interface:* Completed a GUI used for monitoring robot information with Python's PyQt5 library as well as launching and killing ROS nodes/commands using process id handling in Ubuntu.
- *Stock Market Screener:* Web-scraped stock market data and created a firebase database and filter stocks based on indicators using Python, and the beautiful soup library