Allen P. Chien

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Education

University of Wisconsin - Madison   *Madison, WI* · Graduated Fall 2024

Concentration   Computer Science · BS · GPA: 3.4

Technical Skills

Programming Languages   Python, C/C++, Java, JavaScript, HTML/XML/CSS, Rust, Matlab, SQL

Operating Systems   Linux (Ubuntu), MacOS, Windows

Frameworks and Environments   ROS2(Humble/Iron), Gazebo, Mujoco, Unity, Docker, GCP, React, Django

Work Experience

People and Robotics Laboratory @ UW Madison, *Robotics Software Engineer*   *Madison, WI* · 05/2024 - Present
- Program Stretch3 from Hello Robot to perform caregiving tasks such as water delivery at caregiving facilities.
- Design asynchronous door detection functionality with lidar during navigation with Nav2.
- Develop action servers and clients that process low level actions to perform high level manipulation tasks.
- Implement lifecycle functionalities on existing ROS nodes to enforce state transitions.
- Test and reinforce low level actions such as gripping and handling objects to increase reliability.
- Simulate Stretch robot in MuJoCo with ROS to test the reliability of manipulation and navigation.
- Managing the backend of our user interface, including initializing and testing the SQL database, and ensuring the proper functioning of all endpoints.

Distributed AI Lab @ Hunter College (CUNY), *Research Assistant*   *New York, NY* · 06/2023 - 12/2023
- Conducted a deep dive into multi-agent reinforcement learning, exploring foundational algorithms and analyzing recent advancements through academic papers.
- Utilized Starcraft's API as a testing environment to simulate dynamics in complex, multi-agent systems.

LaGuardia Community College (CUNY), *Research Assistant*   *New York, NY* · 11/2022 - 08/2023
- Participated in research with Dr. Praveen Khethavath as a member of the National Institute of Health Bridges.
- Researched and developed a phishing email filtering service, with paper published at IEEE CSDE2023.
- Built the machine learning app on HuggingFace that checks input emails and outputs classification results.
- Performed feature engineering and natural language processing from raw email source.

Need Tech Inc, *Intern*   *Queens, NY* · 03/2023 - 06/2023
- Developed documentation for software applications for clients.
- Deliver technology solutions to local businesses that support and align with their objectives.

Personal Projects

Beach Cleaning Robot, *ROS 2, Gazebo (C++, Python)*   *New York, NY* · 10/2023 - 04/2024
- Built publisher-subscriber and service-request frameworks in ROS2 for node communication.
- Imported rover model to Gazebo and simulated object detection with lidar and navigation towards object.

SVM, *Python (Streamlit)*   *New York, NY* · 03/2023
- Participated and won the First Place at the Bio x ML hackathon hosted by Hugging Face and Lux Capital.
- Built an app on HuggingFace that executes fine-tuning on Language Models (LLMs), and crafts a unified protein embedding across diverse protein modalities.

Scholarships

2024 Goldwater Scholar, National Institute of Health Bridges Scholar, National Community College Aerospace Scholar

Hobbies

Running(Marathon/Trail), swimming, weight lifting, Poker, Rugby, Kayak, Scuba Diving, Piano, Reading