Allen P. Chien

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Technical Skills

Languages	C/C++, Python, Java, MATLAB, MASM32, HTML/CSS, RUST
Operating Systems	MacOS, Windows, Linux, Robot Operating System
Domain Knowledges	Machine Learning(Supervised Learning, Reinforcement Learning, TinyML Deep learning, Natural Language Processing), Embedded Systems

Education

University of Wisconsin - Madison   *Madison, WI · 12/2023 - 05/2025*

Concentration	Computer Science · BS

LaGuardia Community College (CUNY)   *New York, NY · 09/2022 - 12/2023*

Concentration	Computer Science · AS · GPA: 3.9

Work Experience

Hunter College (CUNY), *Research Student*   *New York, NY · 06/2023 - 12/2023*

- Collaborated closely with Dr. Anita Raja in the Distributed Artificial Intelligence Research Lab, actively contributing to research initiatives.
- Researched Multi-Agent scenarios in games, performed experiments with QMIX, MAPPO, GraphMAPPO.
- Researched POMDP, Dec-POMDP solutions and focused on finding fast and optimal solutions.

LaGuardia Community College (CUNY), *Research Student*   *New York, NY · 11/2022 - 08/2023*

- Engaged in impactful research alongside Dr. Praveen Khethavath as a member of the National Institute of Health Bridges, resulting in the publication of a paper in IEEE CSDE 2023.
- Built the machine learning application end-to-end pipeline and showcase through a website.
- Conducted binary classifications using ten distinct supervised and deep learning methods and analyzed their performance with F1 scores and accuracies.
- Performed feature engineering and natural language processing from raw email source, including data cleaning, data extraction, tokenization and standardization.

Projects

Beach Cleaning Robot, *ROS, C++, Python, Gazebo*   *New York, NY · 10/2023 - Present*

- Aim to build multiple robots that cooperate with others and perform beach cleaning tasks.
- Build pub-sub and service-request frameworks for nodes to communicate with each other.
- Perform experiment via Gazebo simulation environment to test multi-agent settings.

Support Vector Machine, *C++, OpenGL*   *New York, NY · 11/2022 - 08/2023*

- Developed a Support Vector Machine (SVM) model from the ground up, achieving unparalleled success with 100% accuracy on linearly separable datasets.
- Applied the Sequential Minimize Optimization (SMO) algorithm to effectively resolve the SVM dual problem.
- Utilized the OpenGL library to visually represent the SVM hyperplane.

LaGuardia Express Search, *Python (Flask)*   *New York, NY · 03/2023*

- Led a high-performing team of 5, securing the First Place at the CUNY-LaGuardiaCC Hackathon 2023.
- Applied advanced speech-to-text technology by transcribing speech inputs into prompt questions using the Google Speech API.
- Built prompts using the OpenAI API to guide users seamlessly to relevant school resources.

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.
- Executed fine-tuning on Language Models (LLMs), crafting a unified protein embedding across diverse protein modalities.