Xi (Sophia) Chen

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Education

Georgia Institute of Technology   August 2021 – Spring 2025 (Expected)

Candidate for Bachelor of Science in Computer Science – Threads: Intelligence and Info Networking
Candidate for Bachelor of Science in Mathematics   Overall GPA: 3.73

Experience

Research Assistant at Gatech Autonomous and Connected Transportation Lab   January 2023 - Present
- Human Machine Interface SubTeam leader, Full Stack Developer (leadership)
- Currently working on cybersecurity machine learning project on hacking detection datasets (about millions of data) paper (paper working)
- Develops V2V/V2I communication between each designated car model server in Unity by UDP protocol
- Collaborates with other sub-teams for HMI interface components

Software Engineer Intern at Freetech (Volvo & Geely)   May 2023 – July 2023
- Worked under Freetech R&D Department – Data Team, to develop data systems and algorithms
- Developed a Driving Simulation to model both static and dynamic environments of vehicles (patent applied)
- Processed raw data from the database and developed own algorithms for data manipulation (patent applied)

Math for Life Club   September 2018 - Present
- Serve as the Club Founder and the 1st President (leadership)
- Work and communicate with the current president and used to monitor the club and run weekly meetings

Skills

Programming: Python, Java, Unity, C#, C++, HTML, CSS, JavaScript, XML , React, Assembly, C
Technologies: PyTorch, TensorFlow, Pandas, PostgreSQL, ASAM Open Drive &Open Scenario, PCAP, CarlaSim, Docker, GitHub
Concepts: Machine Learning, OOP & OOD, Data Structures and Algos, Database Systems, Robotics, Augmented Reality, Computer Organizations, Leadership Development, Startup Methodology

Projects

Hacklytics 2024 – Travel bot AI Hotel Recommender   *February 2024*
- Worked as a backend developer for connecting the API, and database to the webpage application for the trained AI hotel recommender
- Got promoted in the final round of the Hackathon

User Interface for Airline Database System   *April 2023 – May 2023*
- Worked as a backend developer to connect SQL database to the user interface webpage created by two students who were responsible for frontend development
- Used Java model, Dao, Service, and SpringBoot for data retrieval and insertion from SQL

Warehouse Robot Automation   *December 2023*
- Created a robotic simulation for collecting the packages in a randomly generated warehouse environment by Python

Physical Therapy Augmented Reality Mobile App   *April 2023*
- Created an augmented reality app in Unity about simple real-life exercises by wearing VR glasses
- Collaborated with students to develop C# scripts for interaction between humans and computer

Machine Learning COVID Vaccination   *May 2022 – August 2022*
- Developed algorithms by implementing decision trees and logistic regressions by using Python
- Created a data model to help people make better decisions on vaccination

K-means Clustering Research Paper   *July 2019 – May 2020*
- Created algorithms for checking the validity of banknotes by K-means clustering in Python
- Published the paper in the International Journal of Computer Applications website

Awards

Dean's List – for undergraduate excellent academic performance
International Finalist – in both 23rd HiMCM and 21st HiMCM international math modeling competition
Honorable Mention – in 22nd HiMCM international math modeling competition
Sylva Serafino Mathematics Award – for distinction dedication and excellent performance in Math