

# Xi (Sophia) Chen

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## EDUCATION

### Georgia Institute of Technology

Aug 2021 – Expected 2025

*Bachelor of Science in Computer Science & Mathematics*

- **GPA:** 3.72 (Dean's List)
- **Selected Courses:** Object-Oriented Programming, Computer System and Network, Computer Organization and Programming, Algorithms (Honors Level), Database, Robotics Perception, Machine Learning, Computer Vision, Mobile Apps and Services

## PROFESSIONAL EXPERIENCE

### GooseCart (Create-X) | Co-Founders & PM & Lead Software Developer

Feb 2024 – Present | Atlanta, GA

- Developed a cross-platform mobile app using **React Native Expo** for demo and **Android/Swift** for the formal production app.
- Architected backend with **Java MVC** for core operations, **Flask Python** for analytics, and integrated **Firebase** for real-time data and authentication. Employed **MongoDB** for handling large, complex data structures and **RESTful APIs** for communication.
- Led a 10-person development team, acting as PM using **Jira** for product management and **GitHub** for version control.
- Spearheaded **Agile Sprints**, contributing **50%** of the code and overseeing project management.
- Achieved recognition from Georgia Tech **Create X** and **Incubator Awards** from Johns Hopkins, and top 5% in **YCombinator Summer batch** 2024.
- Utilized **Python Pandas** and **Langchain** to build a virtual AI assistant that delivers personalized recommendations using API data.

### Hirebeat Inc. | Software Engineer Intern

Jul 2024 – Aug 2024 | New York City, NY

- Developed and maintained backend systems using **Django**, **AWS**, and **Langgraph**
- Implemented **self-retrieving and logic flow** functionalities in **Langgraph** to enhance LLM performance (**self-rag**)
- Collaborated with teams to integrate backend services within the frontend applications

### Georgia Institute of Technology | Research Assistant & Full-stack Software Developer

January 2023 – August 2024 | Atlanta, GA

#### Human-Machine Interface (HMI) Project:

- Engineered **network protocols** using **UDP** for real-time data transfer across **5 lab servers**, facilitated stable connections for our simulated driving navigation system
- Developed a real-time ego vehicle navigation system in **Unity** and **C#** for driving simulations, implemented functions for dynamic coordinate adjustments and map construction based on vehicle data
- Created a real-time navigation map displaying positions and movements of vehicles within a simulated smart city system, successfully deployed in lab settings for **ADAS** testing

#### Machine Learning for Cybersecurity Project:

- Conducted advanced machine learning analysis on approximately **4 million datasets** for hacking detection, achieved a model accuracy of **95%** and progressing toward academic publication
- Utilized **Python** with **PyTorch** and **TensorFlow** for constructing **Convolutional Neural Networks** and adversarial data sampling

### Freotech Intelligent System | Software Engineer Intern

May 2023 – Jul 2023 | Shanghai, China

- Enhanced data processing systems and algorithms for backend operations and intelligent driving simulations
- Designed a multi-layered driving simulation in **Python** to automatically generate **XML scripts** in **Open Drive** and **Open Scenario** formats, encompassed static and dynamic environments
- Innovated raw data handling with **Python** and **Pandas**, optimized extraction techniques for geolocation and vehicle trajectories to support simulation development and system efficiency

## PROJECTS

### Hacklytics 2024 (Hackathon) | Travel bot AI Hotel Recommender

Feb 2024 | Atlanta, GA

- Led **backend development** and **project management** for integrating APIs into a web application using a **Flask** server and trained traversal and Gemini GPTs with **million-scale** datasets in **Python**
- Advanced to the **final round** of Hacklytics 2024, earned recognition for innovative AI recommendation capabilities

### Campus Discovery Web Application

Sep 2022 – Dec 2022 | Atlanta, GA

- Developed a **React**-based web application to manage campus events, facilitated distinct functionalities for users and managers
- Implemented **Java-based MVC architecture** with **Spring Boot** and **DAO** patterns, enabled robust connection and operations for the MySQL database to the frontend components.
- Designed interactive features such as real-time event updates, event management (add/delete), and a central dashboard to improve user experience and operational efficiency

## SKILLS & INTERESTS

**Programming:** Python, Java, Unity, C#, React, PHP, HTML, CSS, JavaScript, TypeScript, GaphQL, C, Swift, Kotlin, SQL

**Methods:** RESTful APIs, Flask, Pandas, GitHub, Firebase, MongoDB, MVC, Ruby, Spring Boot, PyTorch, Linear Programming,

**Awards:** International Finalist in HiMCM international math modeling competition, Sylva Serafino Mathematics Award