

# Xinyi Zhou

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## EDUCATION

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**Georgia Institute of Technology**  
*M.S. in Computer Science*

Atlanta, United States  
*Aug. 2024 – May 2026 (Expected)*

**Zhejiang University**  
*B.Eng. in Computer Science*

Hangzhou, China  
*Sept. 2020 – June 2024*

## TECHNICAL SKILLS

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- **Languages:** Python, C/C++, C#, JavaScript, CSS, HTML, Assembly
- **Frameworks:** Django, Flask, Node.js, React, Vue, D3, Hadoop, Spark, HBase, PyTorch, Scikit-Learn
- **Tools:** Git, Docker, Cloud Services (AWS, Azure), Databases (SQLite, MySQL, MongoDB), Tmux, Unity
- **Knowledge:** Full-Stack Development, Linux, Distributed System, Machine Learning, Data Analytics, Visualization

## EXPERIENCE

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**System R&D Intern**  
*Momenta*

Mar. 2024 – May 2024  
*Shanghai, China*

- Developed an internal data management platform with **Flask** and **Vue**, successfully incorporating a feature for reorganization and classification of video metadata, and deployed the platform using **Azure**
- Implemented automation scripts to tag video data with corresponding driving scenarios, leveraging **MongoDB** for data management, significantly streamlining data labeling processes for autonomous driving systems
- Developed a scene filter to detect anomalous behaviors in real-world autonomous driving environments, enhancing the system's ability to identify problematic scenarios for further analysis and safety validation
- Conducted performance testing of the scene filter in local simulations and in-vehicle environments, achieving **100%** recall and **83%** precision, successfully integrating it into the mainline system

## PROJECTS

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**Music Controller - Web App**

Oct. 2024 – Dec. 2024

- Built a full-stack web app with **Django REST Framework** and **React**, integrating Webpack and Babel for seamless backend-frontend interaction
- Designed dynamic UI components with **Material UI** and implemented client-side routing using **React Router**
- Integrated the **Spotify API** for user authentication, music playback control, and voting-based song skipping
- Developed room management and session handling features using **Django Sessions** and React hooks (**useState**, **useEffect**) for seamless user interaction

**EasyX - Android Fitness App**

July 2022

- Built an Android app in **Java** to integrate with smart eyewear, enabling hands-free interaction via embedded sensors, tailored for an enhanced fitness experience
- Added voice control using an open-source speech recognition API, allowing intuitive commands for app navigation
- Designed and tested features like remote phone interaction and hands-free controls through **rapid prototyping** and usability testing during a 6-day HCI Bootcamp
- Collaborated effectively under tight deadlines, showcasing strong teamwork, communication, and project management skills

**MyNote - Windows App**

Apr. 2022 – June 2022

- Developed a custom desktop diary text editor in **C++** with advanced search functionality, enabling quick retrieval of entries by date, tag, or other attributes to improve user organization and efficiency
- Designed and implemented responsive **Qt**-based GUIs with intuitive icons, enhancing usability and user interaction
- Connected the application to a **MySQL** database, optimizing metadata management and enabling efficient execution of complex queries