

Yiying Jiang

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EDUCATION

Carnegie Mellon University Master in Mobile and IoT Engineering	Pittsburgh, PA May 2025
University of Michigan Bachelor of Engineering in Computer Science GPA:3.84/4.0	Ann Arbor, MI May 2023
Shanghai Jiao Tong University Bachelor of Engineering in Electrical and Computer Engineering GPA:3.42/4.0	Shanghai, China Aug 2023

TECHNICAL SKILLS

Programming Languages: *Advanced* - C++, Python; *Intermediate* - JavaScript, SQL, Go, C#, C, Java
Programming Tools: *Advanced* - Git, Linux, VSCode; *Intermediate* - Docker, Jira, Bootstrap, AWS
Web Application Development: *Advanced* - HTML, CSS; *Intermediate* - React.js, Vue.js, jQuery, Flask, Network Socket, Hadoop MapReduce

PROFESSIONAL EXPERIENCE

Shanghai Gengyuan Education Technology Co. Software Engineer Intern	Shanghai, China Mar - May 2021
<ul style="list-style-type: none">Led a four-week project designing and prototyping a Mars Exploration Rover with Bluetooth remote control, color detection, and display functions, serving as an innovative teaching tool to enhance hands-on learning for students.Conducted rigorous testing and refinement of the color detection function, accomplishing a 92% accuracy rate.Presented the prototype to senior leadership, receiving favorable feedback and recommendation for inclusion in future technical courses.	

ACADEMIC PROJECTS

Reliable Transport Protocol WTP Computer Networks	Mar - Apr 2023 University of Michigan
<ul style="list-style-type: none">Built a reliable transport protocol in C++ on top of UDP, providing reliable and in-order delivery of UDP packets in the presence of events like packet loss, delay, corruption, duplication, and reordering.Tested and refined the protocol with Mininet on VMware using a simulated topology, achieving successful 10MB video transmission in a 250 bandwidth network with 80% loss rate, 75% reorder rate, and 600ms delay.Optimized the protocol by improving the sliding-window algorithm with buffering to minimize re-transmissions, resulting in a 25% reduction in transmission time.	
Paxos-based Key-Value Service Distributed Systems	Oct - Dec 2022 University of Michigan
<ul style="list-style-type: none">Developed a robust Paxos-based distributed key-value storage system in Go, ensuring high consistency and linearizability, and proficiently handling parallel requests.Implemented the system with a three-layer architecture, encapsulating the implementation details of each layer as abstractions, effectively reducing maintenance overhead.Achieved error-free performance through rigorous testing and improvements, successfully addressing the issues caused by frequent server re-configurations and a 20% failure rate in both servers and the network.	
Instagram Clone Web Systems	Jan - Mar 2022 University of Michigan
<ul style="list-style-type: none">Developed a web-based Instagram clone featuring client-side and server-side dynamic pages, encompassing essential functionalities such as user authentication, commenting, liking, photo sharing, and infinite scroll.Implemented a reusable front-end user interface using React.js and developed a back-end API in Python with a MySQL database utilizing Flask and REST API.Deployed the web application on AWS IaaS by creating an EC2 instance to enhance availability and accessibility.	

HONORS

Dean's Honor List University of Michigan	Fall 2022 - Winter 2023
Undergraduate Excellence Scholarship Shanghai Jiao Tong University	Winter 2020