

Kunyi Yu

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EDUCATION

University of California, Riverside (UCR)	GPA 3.88 M.S. in Computer Science	Jun 2026
Courses: Algorithms, Machine Learning, Robot Navigation, Large Language Models		
Southern University of Science and Technology (SUSTech)	B.E. in CS	Jun 2024
Courses: Data Structures and Algorithms, Database Principles, Object-Oriented Design, Software Engineering, Distributed Systems		

EXPERIENCE

Graduate Research Assistant <i>UCR TASL Lab</i>	Jul 2025—Present
<ul style="list-style-type: none">Contribute to the development of a vehicle-drone collaborative simulator based on CARLA and SUMODevelop LLM-based Vision-and-Language Navigation (VLN) algorithms for drones using urban simulation environment built on AirSim, ROS, and OpenFly	
Undergraduate Research Assistant <i>SUSTech GameAI Lab</i>	Sep 2022—Jun 2024
<ul style="list-style-type: none">Built a 2D game simulator for police pursuit scenarios to support Multi-Agent Reinforcement Learning (MARL)Implemented A* and MARL algorithms in PyTorch, including MADDPG, IQL, and QMIX	
Software Engineer Intern <i>Mushroom Wealth Technology</i>	Sep 2023—Mar 2024
<ul style="list-style-type: none">Developed the Information Center module for a financial SCRM platform adopted by major Chinese brokerage firms, supporting 10,000+ financial advisors in large-scale customer relationship managementBuilt scalable frontend features including pagination for message feeds, advanced filtering, and search capabilities, optimizing data retrieval for high-volume datasetsDesigned reusable Vue.js components to ensure code maintainability and consistent user experienceIntegrated RESTful APIs with Axios and improved resilience through exception handling and retry strategies under unstable network conditions; participated in Agile Scrum sprints (2-week cycles)Contributed to CI/CD pipelines using YAML and GitHub Actions, improving deployment efficiency	

PROJECTS

Visiting SUSTech: WeChat Mini Program for Campus Access Control	<i>Backend Developer</i>
<ul style="list-style-type: none">Developed and deployed a full-stack WeChat Mini Program serving 10,000+ users over a 6-month lifecycle, enabling campus access control through appointment booking and QR code verificationArchitected backend services using Spring Boot, RESTful APIs, and PostgreSQL (Spring Data JDBC), integrating Redis for caching high-frequency queries and secure authentication with JWT and WeChat OAuthBuilt frontend with WeChat native framework and Vue.js (Element Plus UI), and containerized the application with Docker for deployment on Tencent Cloud	
CoinTrack: Web-Based Bill Splitting Platform	<i>Lead Developer</i>
<ul style="list-style-type: none">Developed and deployed a full-stack expense-sharing web app with real-time bill tracking and a custom settlement algorithm to minimize the number of transactions between usersArchitected backend services using Gin and GraphQL APIs with PostgreSQL for transactional integrity, and integrated OpenAI GPT APIs to enable OCR-based receipt parsing from uploaded imagesBuilt a responsive frontend with React.js and TypeScript, and containerized the application with Docker for deployment on Google Kubernetes Engine (GKE), managing the database with Google Cloud SQL	

SKILLS

Languages	Java, Python, Golang, Swift, C/C++, JavaScript, TypeScript, HTML/CSS
Frameworks	Spring Boot, React.js, Vue.js, Gin, SwiftUI, Kafka, Redis
Databases	PostgreSQL, MySQL
DevOps & Cloud	Kubernetes, Docker, Google Cloud (GKE, Cloud SQL), Git, Linux
APIs & Tools	GraphQL, RESTful APIs, PyTorch, Scikit-Learn, ROS