

# Kunyi Yu

951-224-7045 | Riverside, CA | [kyu135@ucr.edu](mailto:kyu135@ucr.edu) | [linkedin.com/in/kunyi-yu](https://www.linkedin.com/in/kunyi-yu) | [rock3yu.github.io](https://rock3yu.github.io) |

## EDUCATION

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### University of California, Riverside (UCR)

Dec. 2025

#### M.S. in Computer Science, GPA 3.66

Riverside, CA

- Courses: Algorithms, HPC, ML, AI, Compiler, Spatial Computing
- Honors: Third Prize: UCR Programming Challenge 2024, ranked 7/89

### Southern University of Science and Technology (SUSTech)

Jul. 2024

#### B.E. in Computer Science

Shenzhen, China

- Courses: Discrete Math; Probability and Statistics; Algorithms I, II; AI; DL; Computer Organization; Operating Systems; Distributed and Cloud; Computer Networks; Software Engineering; Object-oriented; Database Systems
- Honors: Third Prize: The Fourth Computer Programming Competition of SUSTech 2021

## TECHNICAL SKILLS

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<b>Languages:</b>	Java, Python, C++, PostgreSQL, MySQL, R, LaTeX
<b>Web Related:</b>	Vue.js, React.js, Spring Boot, JavaScript/HTML/CSS
<b>Developer Tools:</b>	Git, Docker, Kubernetes, Linux(Arch), MacOS, VS Code, JetBrains, TensorBoard
<b>Libraries:</b>	NumPy, Pandas, PyTorch, Matplotlib, Apache Spark, Open MPI, Hadoop

## EXPERIENCE

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### Undergraduate Researcher, in Multi-agent Reinforcement Learning

Sep. 2022 – Jun. 2024

*Game AI Lab, SUSTech, Supervisors: Prof. Xin Yao, Prof. Jialin Liu*

Shenzhen, China

- Developed a stochastic game model to simulate real-world scenarios of police cars chasing criminal cars
- Built a simulation environment, enabling police car agents to interact and adapt strategies in real time
- Controlled criminal car behavior using an optimized A\* search algorithm, and trained police cars using MARL algorithms such as Multi-Agent DDPG, IQL, VDN, and QMIX in PyTorch
- Achieving a 80%+ success rate in multiple urban simulation environments

### Intern, Front-end Development

Sep. 2023 – Mar. 2024

*Shenzhen Mushroom Wealth Technology Co., Ltd*

Shenzhen, China

- Participated in the development of iService of the company's SCRМ system, responsible for the development of the information center module based on the Vue.js framework
- Conducted functional testing, componentization, code review, and bug fixing

### Intern, Deep Learning Group

Jan. 2021 – Feb. 2021

*Beijing CELinkout Information Technology Co., Ltd.*

Beijing, China

- Assisted in high-precision manufacturing research by applying YOLOv5 for metal defect detection
- Applied YOLOv5 for satellite ship identification as part of the company's product map component

## PROJECTS

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### CoinTrack, a Expense Sharing Web | *Spring Boot, PostgreSQL, React.js, Docker/K8s*

Dec. 2024 – Present

- An ongoing project for tracking and sharing expenses among friends aims to solve a real-life problem.

### Visiting SUSTech | *Java, Spring Boot, PostgreSQL, WXML, WXSS, JavaScript*

Mar. 2023 – Jun. 2023

- Developed a WeChat in-app application for off-campus personnel to submit campus-access appointment
- Built the application's back-end with Spring Boot, created the micro front-end using WXML, WXSS, and JS
- Deployed 6 months, serves for 10k+ users within and outside the campus

### Online Course Platform | *Java, Spring Boot, PostgreSQL, Vue.js*

Sep. 2022 – Dec. 2022

- Implemented features for user management, online streaming, uploads, online quiz, assignments, and payments
- Conducted front-end web development using Vue.js, constructed a database with PostgreSQL, and developed the web backend with Java Spring Boot