

Yuting Zhou

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EDUCATION

Rutgers University , New Jersey, United States	09/2024 - Expected 06/2026
• Major: M.S. Candidate in Computer Science	
Shanghai Institute of Technology , Shanghai, China	09/2020 - 06/2024
• Major: Bachelor of Engineering in Software Engineering (GPA: 3.7, Top 10%)	

AWARDS & CERTIFICATES

- School-level Scholarship: 2nd Prize (2023, 2022), 3rd Prize (2022, 2021, 2020)
- Alibaba Cloud Certified Associate – Big Data, Huawei Certified ICT Associate – Intelligent Computing




RESEARCH EXPERIENCE

Research Assistant Python, PyQt, Pandas, NumPy, Ollama, Docker	06/2025 - Present
RUTGERS Center for Advanced Infrastructure and Transportation (CAIT)	New Jersey, United States
• Processed 80k+ rail network records with automated Pandas scripts, improving anomaly detection efficiency.	
• Optimized NJT Graph runtime from 8 min to <3 min through NumPy vectorization.	
• Developed Qt-based GUI for NJT Graph Processor adopted by 3 teams, enabling non-programmers to use backend tools.	
• Automated consistency checks with LLMs, cutting manual verification by 50% using prompt engineering and Dockerized deployments.	

INTERNSHIP EXPERIENCE

Front-end Engineer Intern JavaScript, Vue, WebSocket, MongoDB	06/2023 - 08/2023
Shanghai TENCHII Digital Tech Co., Ltd. (Tencent × Shanghai Metro Joint Venture)	Shanghai, China
• Contributed to reducing Shanghai Transit App page load latency by 30%, which improved retention by 10%.	
• Assisted in building real-time lottery system for 500K+ users with <200ms latency via WebSocket + MongoDB.	
• Componentized modules in Vue, enabling 5+ new features in one quarter.	
• Delivered 3 cross-team prototype interfaces by collaborating with PMs and iterating with Axure and Vue.	
Software Test Engineer Intern Pytest, JUnit, Selenium	06/2022 - 09/2022
Shanghai Spacecraft Electromechanical Equipment Co., Ltd.	Shanghai, China
• Built automated test environment across 10+ hardware configs with 50+ cases using Pytest/JUnit and CI pipeline.	
• Detected 5 high-priority defects via Selenium UI automation, reducing production risk by around 20%.	

PROJECT EXPERIENCE

AyeNote Online Cloud Notes Vue 3, Django, MySQL, BeautifulSoup	 github.com/Magicherry/AyeNote	05/2022 – 04/2023
• Improved web crawler parsing accuracy from 56% → 78% on 30k+ pages using async + SimHash.		
• Reduced per-note curation time by 60% by integrating LLM summarization.		
• Supported real-time collaboration for 20+ users with <250ms latency via Django Channels.		
King of Bots Vue 3, Spring Boot, MySQL, WebSocket, JWT	 github.com/Magicherry/King-of-Bots	05/2022 – 11/2022
• Developed a full-stack battle platform with Vue 3 + Spring Boot, supporting 50+ concurrent matches <250ms latency.		
• Designed 15+ secure REST APIs with JWT authentication and role-based access control.		
• Improved engagement by 20% through responsive UI and A/B tested layouts.		
Real-time Pose Estimation MoveNet, PyTorch, TensorFlow	 github.com/Magicherry/Pose_Estimation	09/2023 – 05/2024
• Achieved real-time skeletal detection at 30+ FPS with >80% exercise recognition accuracy.		
• Fine-tuned TensorFlow models to support 3 exercise types with avg. precision of 0.87.		
• Beta-tested with 50+ users, gaining 70% positive engagement on the demo system.		

EXTRACURRICULAR EXPERIENCE

Shanghai Institute of Technology	09/2020 – 06/2024
• Active member of Algorithm, Software Engineering, and Robotics clubs, organizing workshops, contests, and technical activities.	
• Mentored peers by resolving 30+ technical questions per semester and coordinated 10+ events annually.	

TECH STACK & LANGUAGES

Programming	C++, Java, Python, Go
Operating Systems	Windows, Linux, macOS
Databases	SQLite, MySQL, Redis, MongoDB
Frontend	HTML, CSS, JavaScript, Node.js, Vue 3, React, Next.js
Backend	Spring / Spring Boot, Django / Flask / FastAPI, Gin, RESTful APIs, Microservices
Containers	Docker, Kubernetes (K8s)
Data & ML	NumPy, Pandas, Matplotlib, scikit-learn, PyTorch, TensorFlow
Languages	English, Mandarin Chinese (<i>bilingual</i>)