

Roxanne Zhang

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Background

- **Google Women Techmakers Scholar** (Top 3% applicants), promoting equity in STEM for **underrepresented** groups
- **Software Engineer Intern** at Cloud+AI, **Microsoft**, preventing **SEV2-level** incidents through the developed system
- **First Author** of a DL-based recommender system DCCDR, published by **DASFAA**, a **top conference** in data systems
- **Awards:** Shanghai Scholarship & Shanghai Jiao Tong University Honor Thesis (**Top 1% undergraduates**)

Education

University of California, San Diego (UCSD)

2023 – 2025 (Expected)

Master of Science in Computer Science

San Diego, CA, USA

Shanghai Jiao Tong University (SJTU)

2019 – 2023

Bachelor of Engineering in Computer Science and Technology, IEEE Honor Class, GPA: 89.78/100

Shanghai, China

Technical Skills

Languages: C/C++, Python, Go, C#, JavaScript, Java, HTML/CSS, CUDA, shell, SQL

Frameworks: Django, Gin, Flask, React, Vue, Spring Boot, Tensorflow, PyTorch

Tools: MongoDB, Redis, MySQL, Docker, Elastic Search, Unix/Linux, AWS, Azure, Google Firebase, NGINX, Git, Grafana

Work Experience

Gemsouls

2023/02 – 2023/05

Software Engineer Intern

Shanghai, China

- Developed an event management system using **React**, **Go** and **AWS**, reducing administration working time by **60%**
- Implemented **RESTful APIs** via **Django** for pop-up filtering, onboarding recommendation, batch-adding friends, etc.
- Utilized **NGINX** as an HTTP load balancer to ensure app robustness during rush hours, serving over **80k+** active users
- Optimized **Google Firebase** query operations through **Redis**, resulting in a **50%** reduction in average API response time
- Employed **Python** scripts and **Celery** tasks to automate daily user wake-ups, revenue statistics and AI audio generation
- Fine-tuned and deployed **LLM Dolly** with avatar scripts to generate personalized introductions based on instructions

Microsoft

2022/07 – 2022/10

Software Engineer Intern, Cloud+AI Department

Shanghai, China

- Designed an **End-to-End Testing System** for Azure alerting system using **Azure Cosmos DB** and **Kusto** logs
- Implemented **Azure cloud functions** to validate test cases, covering **6** services, including incident management, etc.
- Deployed the testing system to the production environment **pipeline**, preventing **SEV2-level** incidents
- Constructed **Azure automation workflows** to monitor the email service of the alerting system every 30 minutes
- Reported email service diagnoses through workflows, resulting in a reduction in downtime from **6 hours** to **30 minutes**

Unity

2022/01 – 2022/06

Software Engineer Intern

Shanghai, China

- Developed a **Unity Editor Test Log Collection System** using **Flask** to store test records and analyze instabilities
- Leveraged **RabbitMQ** to receive results and logs of **500+** test cases generated by the Unity Test Framework daily
- Implemented an error reason searching service using **Elastic Search**, identifying **30+** instabilities and **20+** failed ones
- Deployed MongoDB, ES and the designed system separately on **Docker** and created autostart scripts using **YAML**
- Designed a dashboard using **Vue** and **Grafana** to visualize **7000+** test samples, helping **50+** migration developers directly

Projects

PyTorch CUDA Operators Parallelism Implementation and Optimization (C++, CUDA)

2022/11 – 2022/12

- Employed warp-level primitives to optimize warp reduce of **Softmax kernel**, which improved efficiency by roughly **7%**
- Implemented **matrix multiplication kernel** with matrix chunking and shared memory with **≤1.5%** error
- Optimized shared memory access via vector read instruction LDS.128, resulting in a **3%** efficiency improvement

Disentangled Contrastive Learning for Cross-Domain Recommendation (Python, PyTorch)

2022/04 – 2023/01

- Proposed DCCDR for disentangled cross-domain representation generation using **multi-space mapping** and **contrastive learning (CL)**, achieving a **12%** improvement over 8 SOTA methods (Published by DASFAA-2023)