

# Ruohan Zhang

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## EDUCATION BACKGROUND

### Shanghai Jiao Tong University

*Bachelor of Computer Science, IEEE Honor Class*

Shanghai, China

Sep 2019-Jun 2023

- Major GPA: 89.61/100; 3.83/4.3
- Awards: Shanghai Scholarship (2020) (top 2%), Google Women Techmakers Scholarship (2020) (110 out of 2800 in APAC), COSCO Shipping Scholarship (2021)
- Relevant courses: Data Structures(95), Computer Networks(96), Operating Systems(93), Data Science(96), Mathematical Analysis(99), Linear Algebra(95), Introduction to Electrical Engineering(97), Algorithm design and analysis(93)

## PROFESSIONAL EXPERIENCE

### Microsoft

*Software Engineer Intern, Cloud+AI Department*

Shanghai, China

Jul 2022 – Oct 2022

- Designed **end-to-end testing program** for Azure developer alerting system and developed Azure cloud functions to execute and validate test samples with 1500+ lines of C#, covering 6 services including email sending, incident management, etc.
- Deployed the program to the pipeline of production environment, which successfully avoided SEV2-level incidents caused by code conflicts and improved the stability of the alerting system
- Monitored the email service of the alerting system with **automation workflows** to provide diagnostic log reports, which reduced its downtime from 6 hours to 30 minutes and guaranteed its punctuality

### Unity

*Software Engineer Intern, Genesis Test Team*

Shanghai, China

Jan 2022 – Jun 2022

- Developed **Unity editor test log collection system** with 6000+ lines of Python & Vue.js and implemented service for error reason search with Elastic Search
- Analyzed the instability of test samples with Django framework and MongoDB database, which identified 30+ unstable test cases and 20+ failed ones
- Designed a dashboard based on Grafana to visualize results of 7000+ test samples in five dimensions: time, status, category, platform and error reason, which helped spot problems visually

## RESEARCH EXPERIENCE

### Disentangled Contrastive Learning for Cross-Domain Recommendation

*First Author, The 28<sup>th</sup> International Conference on Database Systems for Advanced Applications Submitted*

Shanghai, China

- Proposed a disentangled contrastive learning model to disentangle and enhance domain-invariant and domain-specific user representations, which utilized the multi-space mapping technique, graph convolutional networks and contrastive learning
- Designed the contrastive learning objective focusing on the similarity of domain-invariant user representations across domains based on the mutual information maximization mechanism, which reduced noise and redundancy in representations generated by current methods and surpassed 8 state-of-the-art methods
- Projected domain-invariant and domain-specific representations to the 2D-space through the T-SNE algorithm, which visually verified the effectiveness of disentanglement by clustering centers at a great disentanglement

### Dual Disentangled Knowledge Transfer for Cross-Domain Recommendation

*Third Author, ACM Transactions on Knowledge Discovery from Data Under Review*

Shanghai, China

Oct 2021 – Sep 2022

- Proposed a dual disentangled knowledge transfer method that used the multi-space mapping technique, which captured a variety of potential interaction-affecting factors
- Extracted effective cross-domain representations based on the attention mechanism and fusion module, which improved coarse-grained knowledge migration and outperformed 7 state-of-the-art approaches
- Open-sourced a crawling Douban dataset that could be freely changed for the percentage of overlapping users, which addressed the paucity of datasets for tasks over partially overlapping users and contributed to further research on data sparsity effects

## LEADERSHIP AND EXTRACURRICULAR EXPERIENCE

### Shanghai Jiao Tong University Young Entrepreneurs Sharing Session

*Initiator, Organizer*

Shanghai, China

Nov 2021

- Organized sharing session, invited Zion founders, and cooperated with Entrepreneurship Academy, which drew 50+ people

### Shanghai Jiao Tong University-Google IamRemarkable Workshop

*Initiator, Organizer*

Shanghai, China

Nov 2020

- Arranged a self-promotion session and invited Google mentors, bringing together 30+ students to get good motivation for future learning

## SKILLS

- **Computer:** Python (Fluent), PyTorch (Fluent), C++ (Fluent), Vue.js (Basic), C# (Basic)
- **Language:** Chinese (native), English (TOEFL: 112, GRE:330+4)
- **Interests:** Swimming, Tennis