

Shurang Wu

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Address: University of Science and Technology of China, No.96 Jinzhai Road, Hefei, Anhui, China

Education

University of Science and Technology of China (USTC), Hefei, Anhui, China Sep 2021-Present

Bachelor of Science in Computer Science (currently final year, expected Jul 2025)

School of the Gifted Young;

Hua Xia Talent Program in Computer Science and Technology;

GPA (Overall): 3.90/4.3 (90.29/100) GPA (Core Courses): 4.12/4.3 Ranking: 9/214(~Top 4%)

Core courses (Part, x/100):

- Computer Programming A (100, Top 1%), Operating Systems (**Honor**) (100, Top 1%),
- Computer Networks (99, Top 1%), Fundamental of Artificial Intelligence (97), Guide to Formal Methods (96),
- Introduction to Computing Systems (96), Computer Organization and Design (**Honor**) (95)

Research Experiences

Remote Research Assistant, Siebel School of Computing and Data Science, UIUC Jul 2023 - Aug 2023

Topological Anonymous Walk Embedding: A New Structural Node Embedding Approach.

Yuchen Yan*, Yongyi Hu*, Qinghai Zhou, Shurang Wu, Dingsu Wang, and Hanghang Tong. In *Proceedings of CIKM'24*

Advisor: Professor Hanghang Tong (Siebel School of Computing and Data Science, UIUC)

- Enhanced the design of the new embedding algorithm.
- Conducted experiments on the effectiveness evaluation of the new embedding method.

Research Assistant, Advanced Data Systems Laboratory, USTC Sep 2023 - June 2024

Resolve the bottleneck of distributed GNN training on large graphs. *In preparation for submitting*

Advisor: Assoc. Professor Cheng Li (School of Computer Science and Technology, USTC)

- Conducted research and experiments on the time bottleneck of distributed GNN training.

Research Assistant, Siebel School of Computing and Data Science, UIUC Jul 2024 - Present

Resolve the correctness problem in Kubernetes controllers' design and implementation.

Advisor: Assoc. Professor Tianyin Xu (Siebel School of Computing and Data Science, UIUC)

- Conducted systematic historical bug analyses of Kubernetes controllers, extracting valuable insights.
- Designed automated testing strategies to improve the reliability and correctness of Kubernetes controllers.

Project Experiences / Teaching Experiences

ErisFS: A Comprehensive virtual filesystem for FreeRTOS. [As a group leader] Mar 2023-Jul 2023

- The first comprehensive virtual filesystem for FreeRTOS can extend to multiple filesystems and storage media.

Teaching Assistant of *Computer Network*, USTC Sept 2023-Jan 2024

- Core course for undergraduate students in the School of Computer Science and Technology, USTC

Teaching Assistant of *Operating Systems (Honor)*, USTC Mar 2024-Jul 2024

- Honor course for undergraduate students in the Hua Xia Talent Program in Computer Science and Technology, USTC

Awards

- USTC Excellent Freshman Scholarship, Bronze, 2021.12
- USTC Excellent Student Scholarship, Bronze, 2022.11; Silver, 2023.11; Gold, 2024.11
- USTC Talent Program Scholarship, Grade B, 2022.12; Grade A, 2023.12
- USTC Yu Qing Software Develop Competition, Silver, 2023.12

Skills

- (Natural) Language Fluency: GRE 327 (157V+170Q); TOEFL iBT 106 (30R+29L+23S+24W), JLPT N1
- Language Skills: Assembly Language, C, C++, JavaScript, Python, Swift, Go, Pascal, LATEX.
- Mathematics: Abstract Algebra, Mathematical Logic, Graph Theory, Calculus, Complex Analysis, Linear Algebra, Probability Theory, Stochastic Processes, Formal Method.