

ZHAOYANG CHU

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EDUCATION

Huazhong University of Science and Technology (Advised by Prof. Yao Wan) <i>M.E. in Computer Science and Technology</i>	GPA: 3.53/4.0 2022 – 2025
Huazhong Agricultural University <i>B.E. in Data Science and Big Data Technology (Graduated with Honors)</i>	GPA: 3.93 /4.0 2018 – 2022

PUBLICATIONS

- [1] Graph Neural Networks for Vulnerability Detection: A Counterfactual Explanation.
Zhaoyang Chu, Yao Wan, Qian Li, Yang Wu, Hongyu Zhang, Yulei Sui, Guandong Xu, Hai Jin.
ISSTA 2024 (CORE A).
- [2] How to Select Pre-Trained Code Models for Reuse? A Learning Perspective*.
Zhangqian Bi, Yao Wan, **Zhaoyang Chu**, Yufei Hu, Junyi Zhang, Hongyu Zhang, Guandong Xu, Hai Jin.
SANER 2025 (CORE A). **IEEE TCSE Distinguished Paper Award*.
- [3] TESTEVAL: Benchmarking Large Language Models for Test Case Generation.
Wenhan Wang, Chenyuan Yang, Zhijie Wang, Yuheng Huang, **Zhaoyang Chu**, Da Song, Lingming Zhang, An Ran Chen, Lei Ma.
NAACL 2025 Findings (CORE A).
- [4] Hierarchical Graph Representation Learning for the Prediction of Drug-Target Binding Affinity.
Zhaoyang Chu, Feng Huang, Haitao Fu, Yuan Quan, Xionghui Zhou, Shichao Liu, Wen Zhang.
Information Sciences (CORE A, Impact Factor 8.1), 2022.

RESEARCH PROJECTS

My research interest mainly focuses on the intersection of **artificial intelligence** and **software engineering**:

Counterfactual Reasoning for GNN-based Vulnerability Detection

- Offer counterfactual explanations for uncovering the decision mechanisms of GNN-based detection systems.
- Accepted by **ISSTA 2024 (CORE A)**, First Author.

Learning-based Code LLM Selection for Reuse

- Guide developers to efficiently select pre-trained code LLMs suitable for target tasks within limited budgets.
- Accepted by **SANER 2025 (CORE A)**, Co-Author.

Benchmarking LLMs for Test Case Generation

- Evaluate LLMs' capabilities in generating test cases for given programs.
- Accepted by **NAACL 2025 Findings (CORE A)**, Co-Author.

LLM-as-a-Judge for Code Summarization

- Leverage LLMs to evaluate the quality of code summaries generated by neural models.
- Submitted to **IEEE Transactions on Software Engineering (CORE A*)**, Major Revision, Co-Author.

Machine Unlearning for Code LLMs

- Mitigating sensitive information leakage in Code LLMs through machine unlearning.
- Submitted to **ICSE 2026 (CORE A*)**, First Author.

Benchmarking LLMs for Synchronizing with Dynamic Code Evolution

- Assess LLMs' abilities to stay synchronized with real-time API updates from Python third-party libraries.
- Submitted to **ICML 2025 (CORE A*)**, Co-First Author.

HONORS & AWARDS

National Scholarship for Postgraduates (Top 1%), **National Scholarship for Undergraduates (Top 1%)**