

Zishuo Xu

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Address: Huazhong University of Science and Technology, Wuhan, Hubei Province, China

Education

Huazhong University of Science and Technology (HUST), Wuhan, China 09/2022-Present
Bachelor of Software Engineering (expected in 06/2026)

Overall GPA: 87.24/100

Core courses: Fundamentals of Computer Programming(C++)(91/100), Probability Theory and Mathematical Statistics(91/100), Complex Function and Integral Transform(96/100), Principles of Operating Systems(98/100), Digital Logic(94/100), Natural Language Processing(96/100), Introduction to Artificial Intelligence (91/100), Digital Image Processing Techniques(94/100)

Research Experiences

WARBERT: A Hierarchical BERT-based Model for Web API Recommendation 11/2023-1/2025

Research assistant, Advisor: Prof. [Dezhong Yao](#), Department of Computer Science, HUST

- Proposed the hierarchical architecture of WARBERT where WARBERT(R) treats each API as a label for classification, serving as the initial filter, and WARBERT(M) refines the matching process by retrieving APIs to match mashups, pioneering the combination of matching and recommendation techniques within the API recommendation domain.
- Introduced the attention comparison mechanism and dual-component feature fusion strategy allowing for a more accurate comparison of mashup requirements with API functions thus enhancing the model's performance on the task of API Recommendation.
- Led the project and generated a first-author paper "WARBERT: A Hierarchical BERT-based Model for Web API Recommendation" while independently implementing the entire experimental framework, including developing all the code required for the experiments.

3D point cloud completion via 2D priors 08/2024-Present

Research assistant, Advisor: Prof. [Haoang Li](#), Department of Robotics and Autonomous Systems, HKUST

- Employed the depth-conditioned ControlNet and implemented SDS loss to help guide the optimization of 3D Gaussians which are transformed from partial point cloud.
- Attempted to utilize the text prompt to guide the newly added 3D gaussians via the 2D priors of stable diffusion to complete the missing regions while preserving the shape of the partial point cloud.
- Evaluated the framework on Redwood dataset which illustrated the effectiveness of the 2D priors in the task of point cloud completion.

COVID-19 Fake News Challenge stage I: stance detection 07/2023-10/2023

Research assistant, Advisor: [Di Jin](#), Senior Applied Scientist at Amazon AGI

- Advised to use a TF-IDF vectorizer to process title and text vectors, and calculated cosine similarity to obtain feature vectors.
- Preprocessed the text with a stackLSTM model and obtained the final prediction value through an MLP model to determine the relationship between the title and the text.
- Optimized the model by continuously updating parameters using the SGD algorithm to minimize the loss and attained the accuracy above 70%.

Poker Card Game "Douniu" Win-Loss Assistant 01/2023-02/2023

Research assistant, Advisor: [Xiangdong Zhou](#), Department of Mechanical Science and Engineering, HUST

- Abstracted the actual problem and used a loop to obtain all possible combinations of 5 poker cards.
- Calculated the total points of the player's 5 poker cards excluding the number named "niu" by using a custom "sum" function.

- Utilized bubble sort and a custom compare function to determine the final win or loss of the player's poker cards.

Internship Experiences

Fanuo Software Technology Co., Ltd., Wuhan

06/2023

- Designed the main page framework of an accounting book using Qt Designer, beautified it with PyQt6 by adjusting fonts and background images, and packaged Python files into an exe file with PyInstaller, incorporating an icon.

Papers

- **Zishuo Xu**, Yuhong Gu, Dezhong Yao, *WARBERT: A Hierarchical BERT-based Model for Web API Recommendation* (in submission)

Awards

Self-improvement and Perseverance Scholarship(HUST)

09/2024

Skills

Programming: C, C++, Python, PyTorch, java, HTML, CSS

Languages: English (fluent), Mandarin (native), TOEFL:103(Writing:25)