Zhaolong Su

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Education

Beijing University of Technology *Sept. 2021-Jun. 2025*
Bachelor of Engineering
Major: Artificial Intelligence
GPA: 3.68/4.0 | Average Mark: 87.99/100(Top 11% in Major)
Core courses: Function of the Complex Variable (99), Deep Learning(98), College Physics(98), Engineering Graphics(97), Linear Algebra (94), Natural Language Processing(93), Comprehensive Experiment in Computer Vision(93), Data Visualization(91), Optimization Theory and Methods(91), Machine Learning(90), Data Mining(90), Pattern Recognition II(84 *Rank2nd in major*).

Programming
Python, R programming language, C, Pytorch, Monai

Publication

- **Zhaolong Su**, Zongwei Zhou*, Alan Yullie*, *Breaking the Scaling Law: How can we train a segment model more efficiently over three months?* *Corresponding authors, [Preparing for ICCV 2025]
- **Zhaolong Su**, Zongwei Zhou*, Alan Yuille*, *Enabling AI to Segment Continuous Data Flow of Synonyms, Hierarchical, and Novel Classes in Multicenter CT Data with Manageable Cost,* *Corresponding authors, [RSNA 2024 2nd round rejected]
- **Zhaolong Su**, Yunhan Tian, Jiakui Hu, Jieneng Chen*, *Can Language Model Serves as a Physical Interface In Video?* [Preparing for MM]
- Jiakui Hu, **Zhaolong Su****,** Guoqi Li***,** Meta-Memory in Token Mixers: Defining and Exploring Memory-Performance Curves Across Vision Tasks, *Corresponding authors, [Preparing PAMI]
- Manfei li, **Zhaolong Su****, Maizie Zhou*, *SpatialTranscriptomics LocalAlignST,* *Corresponding authors, [Preparing for Nature Communication]
- **Zhaolong Su**, Yuxuan Chen, Yike Li, Wentao Zhang*, *OpenAGCL: A Thorough Benchmark for Augmentations in Graph Contrastive Learning*, [Incoming ArXiv]

Experience

Johns Hopkins University
Computer Vision/ Vision Language Model *Mar. 2024-Present*
Position: *Summer Onsite Intern,* ***Supervisor:*** *Alan Yuille, Zongwei Zhou*
Project 1: *Breaking the Scaling Law: How to Break the Traditional Scaling Law in a Three-Month Training.*
Optimizing segmentation models from the perspective of scaling down: In an effort to enhance data utilization, to train model on a continual flow of CT data and type of annotated classes from multiple clinical centers with manageable cost, using language to segment novel classes.

Ongoing Project: *Video Caption Makes Better Physical Features(Preparing for MM 2025)*
Utilizing Large Language Models, developed a system to enhance Video Generation (Diffusion) Models by integrating structured physical knowledge into captions, addressing limitations in existing models related to physical realism.

Vanderbilt University
Bioinformatics *Sep. 2024-Present*

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Position: *Remote Intern,* ***Supervisor:*** *Xin maizie Zhou, Shan Meltzer*
Ongoing Project: *SpatialTranscriptomics_LocalAlignST*
Benchmarking Sota Align algorithms(e,g,. CAST, GPSA, STalign, scHolography), propose a novel algorithm to align spatial data in 3D dimension.

Peking University Data-centric Machine Learning Group
GNN / LLM *Jan. 2024-May. 2024*
Position: *Remote Intern,* ***Supervisor:*** *Wentao Zhang*
Project 1: *OpenAGCL: A Thorough Benchmark for Augmentations in Graph Contrastive Learning*
Benchmarking for data augmentation for Graph Contrastive Learning, proposing new insights on graph agumentation interpretability in Graph Contrastive Learning.

Ongoing Project: *Multi-QAEncoder: Towards aligned representation learning in question answering system*
Large Language Model querying and indexing of knowledge for optimized problem-solving in medical domains.

The University of Hong Kong (AIMED)
Computer Vision
Position: *Research Assistant,* ***Supervisor:*** *Tao Huang, Xihe Kuang* *Sept. 2023-Oct.2024*
Project: *Wukong: Light-based Disease Analysis and Follow-up*
Responsible for, data generation, medical spine data set construction, developing Wukong's core Computer Vision based algorithms and scoliosis software front-end testing.

Industry

Meituan
Large Language Model Group Feb. *2025- Present*
Position: Onsite Intern
Topic: *Multimodal Context Understanding, LLMs robust reasoning.*

Others

- Leading the project, the data-driven crowd simulation system won the third prize at the "Challenge Cup" National College Student Extracurricular Academic Science and Technology Competition.
- National Scholarship, Academic Excellence Scholarship
- 7th China College Scientific Research English Presentation Contest national Grand Prize