

# Zishuo Zheng

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## Education

<b>The Ohio State University</b> <i>PhD in Computer Science</i>	Sep 2024 – May 2029
◦ Working with Prof. <a href="#">Sachin Kumar</a> ↗ on RL training and safety of LLMs [1].	
◦ Web Agents and RAG.	
<b>University of Chinese Academy of Sciences, Institute of Neuroscience</b> <i>MS in Computational Biology</i>	Sep 2020 – Jan 2024
◦ Developed a spiking neural network model of the hippocampus that unifies spatial and episodic memory.	
<b>Xi'an Jiaotong University, China</b> <i>BS in Computer Science</i>	Sep 2015 – Jun 2019
◦ Conducted research on network architecture search for convolutional neural networks [4].	

## Experience

<b>UMass Amherst</b> <i>Research Intern</i>	Sep 2023 – Jan 2024
◦ Worked with Prof. <a href="#">Chuang Gan</a> ↗ on embodied multisensory models [2].	
<b>Microsoft</b> <i>Software Development Engineer (SDE)</i>	Jul 2019 – Aug 2020
◦ Led the development of the Microsoft patent “Risk Assessment of Firewall Rules in a Datacenter.”	
<b>Microsoft Research Asia (MSRA)</b> <i>Research Intern</i>	Jul 2018 – Jun 2019
◦ Designed compressed CNN models for real-time semantic segmentation in Skype and Teams.	
<b>Momenta</b> <i>SDE Intern</i>	May 2018 – Jul 2018
◦ Built UE4-based simulations for autonomous driving.	

## Ongoing Projects

Reasoning for multimodal instruction hierarchy resolution.  
Latent and parallel reasoning in multimodal models.

## Publications

[1] **Reasoning Up the Instruction Ladder for Controllable Language Models.**  
**Zishuo Zheng**, Vidhisha Balachandran, Chan Young Park, Faeze Brahman, Sachin Kumar.  
NeurIPS Workshop, 2025. (Under review at ICLR) [\[Preprint\]](#) ↗

[2] **MultiPLY: A Multisensory Object-Centric Embodied Large Language Model in 3D World.**  
Yining Hong, **Zishuo Zheng**, Peihao Cheng, Yian Wang, Junyan Li, Chuang Gan.  
CVPR, 2024. [\[Paper\]](#) ↗

[3] **Interictal Heart Rate Variability as a Biomarker for Comorbid Depressive Disorders Among People With Epilepsy.**  
Guliqiemu Aimaier, Kun Qian, **Zishuo Zheng**, Weifeng Peng, Zhe Zhang, Jing Ding, Xin Wang.  
Brain Sciences, 2022. [\[Paper\]](#) ↗

[4] **Multitask Learning With Enhanced Modules.**  
**Zishuo Zheng**, Yadong Wei, Zixu Zhao, Xindi Wu, Zhengcheng Li, Pengju Ren.  
IEEE 23rd International Conference on Digital Signal Processing, 2018. [\[Paper\]](#) ↗

## Skills and Awards

Python, C++  
Tensorflow, Pytorch  
Web Backend Development, Cybersecurity, and Penetration Testing  
Game design, Unreal Engine 4  
Silver Medal, ACM International Collegiate Programming Contest (ICPC), Shaanxi Provincial Contest, China