

# Tiansheng Wen

Xi'an, China | [neilwen987@gmail.com](mailto:neilwen987@gmail.com) | [Google Scholar](#)

Homepage: <https://neilwen987.github.io/>

## EDUCATION

### Xidian University

M.S. in Information and Telecommunication Engineering

Advisor : [Prof. Bo Chen](#)

Overall GPA: 3.8 / 4.0

Toefl : 93 (Speaking:22)

Xi'an, China

Sept. 2023 - present

### Xidian University

Bachelor in Electronic Engineering

Advisor : [Prof. Bo Chen](#)

Overall GPA: 3.8 / 4.0; Rank: 32/342

Xi'an, China

Sept. 2019 - Jul. 2023

## EXPERIENCE

### Stony Brook University

Research Intern

Advisor : [Prof. Chenyu You](#)

NY, United States

Jul. 2024 - Oct. 2025

**Research Focus:** Sparsity, Adaptive Representation Learning, Uncertainty Estimation

## RESEARCH INTERESTS

My primary research goal is to develop **efficient, scalable, and reliable** methods for machine learning and generative AI, with a particular focus on sparsity, adaptive representation learning, and principled uncertainty estimation in foundation models—including LLMs, VLMs, and diffusion models. I am also interested in the memorization effects in foundation models, especially at the intersection of cognitive science and machine learning.

## PUBLICATION(\* EQUAL CONTRIBUTION)

### Beyond Matryoshka: Revisiting Sparse Coding for Adaptive Representation

**Oral Presentation** ICML 2025

*Github repo 120+ stars*

Tiansheng Wen\*, Yifei Wang\*, Zequn Zeng, Xinyang Liu, Bo Chen, Hongwei Liu, Stefanie Jegelka, Chenyu You

### Route Experts by Sequence, Not by Token

*under conference review*

Tiansheng Wen\*, Yifei Wang\*, Bo Chen, Stefanie Jegelka, Chenyu You

### Zero the Features, Not the Scores: Scaling Attention via Feature Sparsity

*under conference review*

Xie Yan\*, Tiansheng Wen\*, Bo Chen, Chenyu You, Stefanie Jegelka, Yifei Wang

### CSRv2: Unlocking Ultra-Sparse Embeddings

Extension of former ICML Oral work

*under conference review*

Lixuan Guo\*, Yifei Wang\*, Tiansheng Wen\*, Bo Chen, Stefanie Jegelka, Chenyu You

### Contrastive Factor Analysis

Arxiv 2024

*under journal review*

Zhibin Duan\*, Tiansheng Wen\*, Yifei Wang, Chen Zhu, Bo Chen, Mingyuan Zhou

**A Non-negative VAE: the Generalized Gamma Belief Network**

Arxiv 2024

*under journal review*

Zhibin Duan, **Tiansheng Wen**, Muyao Wang, Bo Chen, Mingyuan Zhou

**Simple Feature Reweighting for Multi-modal Model Group Robustness**

*under journal review*

Chenyu You\*, Weicheng Dai\*, Yifei Min\*, **Tiansheng Wen\***, Lawrence Staib, James Duncan

**Explaining Domain Shifts in Language: Concept erasing for Interpretable Image Classification**

CVPR 2025

Zequn Zeng, Yudi Su, Jianqiao Sun, **Tiansheng Wen**, Hao Zhang, Zhengjue Wang, Bo Chen, Hongwei Liu, Jiawei Ma

**HICEScore: A Hierarchical Metric for Image Captioning Evaluation**

ACM MM 2024

Zequn Zeng, Jianqiao Sun, Hao Zhang, **Tiansheng Wen**, Yudi Su, Yan Xie, Zhengjue Wang, Bo Chen

**SERVICE**

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**Journal Reviewer:** TPAMI, JMLR, PR, TMI, TNNLS.

**Conference Reviewer:** NeurIPS, ICLR, CVPR, AAAI.

**AWARDS & HONORS**

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|---|------|
| ➤ National Scholarship in Xidian University                   | 2025 |
| ➤ First-Class Graduate Scholarship in Xidian University       | 2024 |
| ➤ Second-Class Undergraduate Scholarship in Xidian University | 2021 |
| ➤ First-Class Undergraduate Scholarship in Xidian University  | 2020 |

**TECHNICAL PROFICIENCIES**

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**Programming Languages:** Python, C/C++, MATLAB, HTML, etc.

**Tools & Frameworks:** PyTorch, vLLM, LLaMA-Factory, Git, Latex, Markdown, etc.

**Language:** Mandarin(Native speaker), English(Fluent).