# **Tiansheng Wen**

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

#### **EDUCATION**

Xidian University Xi'an, China

M.S. in Information and Telecommunication Engineering Sept. 2023 - present

Advisor: Prof. Bo Chen Overall GPA: 3.8 / 4.0 Toefl: 93 (Speaking: 22)

Xidian University Xi'an, China

Bachelor in Electronic Engineering Sept. 2019 - Jul. 2023

**Advisor : Prof. Bo Chen** 

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

**EXPERIENCE** 

Stony Brook University

NY, United States

Research Intern Jul. 2024 - Oct. 2025

Advisor: Prof. Chenyu You

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)

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

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

ICML 2025 (Oral) | Github repo 120+ stars

## 8. Route Experts by Sequence, Not by Token

**Tiansheng Wen\***, Yifei Wang\*, Bo Chen, Stefanie Jegelka, Chenyu You ICLR 2026 (under review)

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

Xie Yan\*, **Tiansheng Wen**\*, Bo Chen, Chenyu You, Stefanie Jegelka, Yifei Wang ICLR 2026 (under review)

### 6. CSRv2: Unlocking Ultra-Sparse Embeddings

Lixuan Guo\*, Yifei Wang\*, **Tiansheng Wen**\*, Bo Chen, Stefanie Jegelka, Chenyu You ICLR 2026 (under review)

### 5. Contrastive Factor Analysis

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

## 4. A Non-negative VAE: the Generalized Gamma Belief Network

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

# 3. Simple Feature Reweighting for Multi-modal Model Group Robustness

Chenyu You\*, Weicheng Dai\*, Yifei Min\*, **Tiansheng Wen**\*, Lawrence Staib, James Ducan TPAMI under review

## 2. Explaining Domain Shifts in Language: Concept erasing for Interpretable Image Classification

Zequn Zeng, Yudi Su, Jianqiao Sun, **Tiansheng Wen**, Hao Zhang, Zhengjue Wang, Bo Chen, Hongwei Liu, Jiawei Ma CVPR 2025

## 1. HICEScore: A Hierarchical Metric for Image Captioning Evaluation

Zequn Zeng, Jianqiao Sun, Hao Zhang, **Tiansheng Wen**, Yudi Su, Yan Xie, Zhengjue Wang, Bo Chen ACM MM 2024

#### **SERVICE**

Journal Reviewer: TPAMI, JMLR, PR, TMI, TNNLS. Conference Reviewer: NeurIPS, ICLR, CVPR, AAAI.

## **AWARDS & HONORS**

> National Scholarship in Xidian University	2025
➤ First-Class Graduate Scholarship in Xidian University	2024
<ul> <li>Second-Class Undergraduate Scholarship in Xidian University</li> </ul>	2021
➤ First-Class Undergraduate Scholarship in Xidian University	2020

### **TECHNICAL PROFICIENCIES**

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

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

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