XIANPENG LIU

+1 (984) 218-7386 | xliu59@ncsu.edu | https://xianpeng919.github.io/

EDUCATION

North Carolina State University, Raleigh, NC *Aug. 2018 - Dec. 2023*
Ph.D. in Electrical Engineering

Harbin Institute of Technology, Harbin, China *Aug. 2012 - June 2018*
M.S. in Materials Processing Engineering
B.Eng. in Welding Science and Technology, Honors School (top 5%)

EXPERIENCES

***Machine Learning Engineer*, Bytedance Inc.** Bellevue, WA
Team: E-Commerce Knowledge Graph Feb. 2024 - Present

***Research Intern in Machine Learning*, OPPO Seattle Research Center (OSRC)** Bellevue, WA
Mentor: Dr. Guojun Qi (***IEEE Fellow***) Summer, Fall 2022
○ ***Focus:*** **Deep Learning** projects for **3D Object Detection** and **Human Mesh Recovery**.

***Research Assistant*, Interpretable Visual Modeling, Computing and Learning (iVMCL) Lab** Raleigh, NC
Advisor: Prof. Tianfu Wu Jan. 2020 - Dec. 2023
○ ***Research Focus:*** **Computer vision** and **Deep learning**, especially on **2D/3D Object Recognition** (classification, detection, segmentation, etc.) and **3D Reconstruction** (**NeRF**).

***Research Assistant*, Multimedia and Forensic (MF) Lab** Raleigh, NC
Mentor: Prof. Chau-Wai Wong Aug. 2018 - Dec. 2019
○ ***Research Focus:*** **Machine learning** on **Video Data Analysis/Forensics** and **Social Media Data analysis**.

SKILLS

Programming:	**Python**, **SQL**, C/C++, JavaScript, PHP, HTML/CSS
Libraries:	*Machine Learning & Data Science:* Numpy, Scipy, Pandas, Matplotlib, Seaborn
	Deep Learning: Pytorch, Tensorflow, Keras
	Computer Vision: OpenCV, MMDetection, MMDetection3D, Detectron2, Nerfstudio
Tools:	Matlab, Git, LaTeX, Vim

PUBLICATIONS

○ **X. Liu**, C. Zheng, M. Qian, N. Xue, C. Chen, Z. Zhang, C. Li and T. Wu. "Multi-View Attentive Contextualization for Multi-View 3D Object Detection." in *Proceedings of the IEEE/CVF International Conference on Computer Vision (**CVPR**), 2024.*

○ **X. Liu**, C. Zheng, K. Cheng, N. Xue, G. Qi and T. Wu. "Monocular 3D Object Detection with Bounding Box Denoising in 3D by Perceiver." in *Proceedings of the IEEE/CVF International Conference on Computer Vision (**ICCV**), 2023.*

○ C. Zheng, **X. Liu**, G. Qi and C. Chen. "POTTER: Pooling Attention Transformer for Efficient Human Mesh Recovery." in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2023*.

○ **X. Liu**, N. Xue and T. Wu. "Learning Auxiliary Monocular Contexts Helps Monocular 3D Object Detection." in *Proceedings of the AAAI Conference on Artificial Intelligence (**AAAI**), 2022*.

○ J. Wu, C. Wong, X. Zhao and **X. Liu**. "Toward Effective Automated Content Analysis via Crowdsourcing." in *IEEE International Conference on Multimedia and Expo (**ICME**)*, pp. 1-6, held virtually, July 2021.

○ **X. Liu** and C. Wong. "Video-based Wetting Detection for Blended Fabrics." in *IEEE Asilomar Conference on Signals, Systems, and Computers (**ACSSC**)*, pp. 89-93, Pacific Grove, USA, November 2019.

ACADEMIC SERVICES

Journal and Conference Reviewer:	**Journal:** Image and Vision Computing, Neurocomputing, Neural Networks, IEEE/CAA Journal of Automatica Sinica, Frontiers of Computer Science **Conference:** CVPR, ICCV, ECCV
Open Source Projects:	**CVPR'24 Paper:** https://xianpeng919.github.io/mvacon **ICCV'23 Paper:** https://xianpeng919.github.io/monoxiver **AAAI'22 Paper:** https://github.com/Xianpeng919/MonoCon