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RESEARCH INTERESTS Geometric deep learning for 3D data; Self-supervised learning for 3D vision (I would love to collect my own data for this purpose); Computational geometry for mesh triangulation and deformation; Shape analysis; High-level (dynamic) scene parsing in 3D vision; Multi-media applications involving 3D data with other data modalities (e.g. audios, texts); Adversarial machine learning; Medical image processing; Relational networks.

EDUCATION **The University of Western Australia** Perth, WA
 PhD in Computer Science and Software Engineering Aug/2017 – Aug/2020
 Supervisors: Prof. Ajmal Mian; Dr. Naveed Akhtar.

ACADEMIC EXPERIENCE **The University of Western Australia** Perth, WA
 Research about feature learning for meshes Aug/2021 – Dec/2021

PREPRINTS [1] **Huan LEI**, Naveed Akhtar, Mubarak Shah, Ajmal Mian. Geometric Feature Learning for 3D Meshes. *Under Review TPAMI*, <https://arxiv.org/abs/2112.01801>, Dec 2021. (My Favourite Work).
 [2] **Huan LEI**, Naveed Akhtar, and Ajmal Mian. Spherical convolutional neural network for 3D point clouds. arXiv preprint arXiv:1805.07872, 2018.

PUBLICATIONS [1] **Huan LEI**, Naveed Akhtar, Ajmal Mian. Picasso: A CUDA-based Library for Deep Learning over 3D Meshes, **CVPR**, 2021. [paper], [code].
 [2] **Huan LEI**, Naveed Akhtar, Ajmal Mian. SegGCN: Efficient 3D Point Cloud Segmentation with Fuzzy Spherical Kernel, **CVPR**, 2020. [paper], [code].
 [3] **Huan LEI**, Naveed Akhtar, Ajmal Mian. Spherical Kernel for Efficient Graph Convolution on 3D Point Clouds, **TPAMI**, March 2020. [paper], [code].
 [4] **Huan LEI**, Naveed Akhtar, Ajmal Mian. Octree guided CNN with Spherical Kernels for 3D Point Clouds, **CVPR**, 2019. [paper], [code].
 [5] **Huan LEI**, Guang Jiang, Long Quan. Fast Descriptors and Correspondence Propagation for Robust Global Point Cloud Registration, **TIP**, 2017. [paper], [code].

As per Google Scholar metrics, **CVPR** is ranked 4th among all publications (journals and conferences) in English, just below Science https://scholar.google.com/citations?view_op=top_venues&hl=en. CVPR is the most impactful venue in the category of “Engineering and Computer Science”. **TPAMI** is the highest ranked journal in the area of “Computer Vision and Artificial Intelligence”, with an impact factor of 16.389 in the year 2020.

TECHNICAL SKILLS **Programming:** CUDA C, Python, C/C++, MATLAB (with mex)
Libraries: Tensorflow, Pytorch, Picasso (ours), Open3D, Opencv, PCL.