Wenbo Huang

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1996-10

Education

Nanjing Tech University Sep 2015 - Jun 2019
Automation Bachelor College of Electrical Engineering and Control Science Nanjing, Jiangsu, China

Nanjing Normal University 211 Double 1st-Class Sep 2019 - Jun 2022
Electronic Information Master School of Electric and Autumation Engineerning/College of Computer and Electronic Information Nanjing, Jiangsu, China

Southeast University 985 211 Double 1st-Class Sep 2022 - Jun 2025
Computer Science and Tecenology (Artificial Intelligence) Doctor School of Computer Science and Engineerning Nanjing, Jiangsu, China

- Excellent Ph.D Training Program

Research Interests

Video Analytic, Multimedia, and Ubiquitous Computing

Publication

Paper:

- **Wenbo.Huang**, Jinghui Zhang*, Xuwei Qian, et al. *SOAP: Enhancing Spatio-Temporal Relation and Motion Information Capturing for Few-Shot Action Recognition, the 32nd ACM International Conference on Multimedia, Melbourne, Australia* **(CCF Rank A, Accept rate 26.2%), 2024.**
- **Wenbo.Huang**, Lei.Zhang*, Hao.Wu, et al. *Channel-Equalization-HAR: A Light-weight Convolutional Neural Network for Wearable Sensor Based Human Activity Recognition*, **DOI: 10.1109/TMC.2022.3174816, IEEE Transactions on Mobile Computing (CCF Rank A, IF=7.9, ESI Top 1% Highly Cited), 2022.**
- **Wenbo.Huang**, Lei.Zhang*, Shuoyuan.Wang, et al. *Deep Ensemble Learning for Human Activity Recognition Using Wearable Sensors via Filter Activation*, **DOI: 10.1145/3551486, ACM Transactions on Embedded Computing Systems (CCF Rank B, IF=2.0, ESI Top 1% Highly Cited), 2022.**
- **Wenbo.Huang**, Lei.Zhang*, Qi.Teng, et al. *The Convolutional Neural Networks Training with Channel-Selectivity for Human Activity Recognition Based on Sensors*, **DOI: 10.1109/JBHI.2021.3092396, IEEE Journal of Biomedical and Health Informatics (Old Name：IEEE Transactions on Information Technology in Biomedicine, CCF Rank C, IF=7.7), 2021.**
- **Wenbo.Huang**, Lei.Zhang*, Wenbin.Gao, et al. *Shallow Convolutional Neural Networks for Human Activity Recognition using Wearable Sensors*, **DOI: 10.1109/TIM.2021.3091990, IEEE Transactions on Instrumentation and Measurement (CIS Rank T1, CAA Rank B, IF=5.6), 2021.**
- Wenbin.Gao, Lei.Zhang*, **Wenbo.Huang**, et al. *Deep Neural Networks for Sensor Based Human Activity Recognition Using Selective Kernel Convolution*, **DOI: 10.1109/TIM.2021.3102735, IEEE Transactions on Instrumentation and Measurement (CIS Rank T1, CAA Rank B, IF=5.6), 2021.**
- Xing.Wang, Lei.Zhang*, **Wenbo.Huang**, et al. *Deep convolutional networks with tunable speed-accuracy trade-off for human activity recognition using wearables*, **10.1109/TIM.2021.3132088, IEEE Transactions on Instrumentation and Measurement (CIS Rank T1, CAA Rank B, IF=5.6), 2021.**
- Shige.Xu, Lei.Zhang*, **Wenbo.Huang**, et al. *Deformable Convolutional Networks for Human Activity Recognition Using Wearable Sensors*, **DOI: 10.1109/TIM.2022.3158427, IEEE Transactions on Instrumentation and Measurement (CIS Rank T1, CAA Rank B, IF=5.6), 2022.**
- Chaolei.Han, Lei.Zhang*, Yin.Tang, **Wenbo.Huang**, et al. *Human Activity Recognition Using Wearable Sensors by Heterogeneous Convolutional Neural Networks*, **DOI: 10.1016/J.ESWA.2022.116764, Elsevier Expert Systems with Applications (CCF Rank C, IF=8.5.), 2022.**
- Shuoyuan.Wang, Lei.Zhang*, Xing.Wang, **Wenbo.Huang**, et al. *A novel all-MLP architecture for real-time human activity recognition in wearable devices*, **IEEE Transactions on Biometrics, Identity and Behavior, 2024.**

Academic Work

Reviewer for ACM MM 2024, NeurIPS 2024, IEEE Transactions on Knowledge and Data Engineering, Elsevier Neurocomputing. 2023.

Honor & Award

- Freshman Scholarship of Southeast University in 2022
- Outstanding Graduate student of Nanjing Normal University in 2022
- National Scholarship for Postgraduate Students in 2021 (rank 1, total 65)
- First-class Academic Scholarship of Nanjing Normal University in 2021 (rank 6, total 65)
- Outstanding Postgraduate of Nanjing Normal University in 2021 (rank 3, total 31)
- The third provincial prize of "Black Science and Technology" special Competition of the 17th "Challenge Cup" National College Students Extracurricular Academic Science and Technology Works Competition in 2021

Skills

- **Programming:** Proficient in Using Python libraries such as NumPy, Pandas, and SciKit-learn
- **Languages:** CET-4 522, CET-6 494
- **Activities:** Improving mathematical and algorithmic foundations of learning: Data Structure, Calculus, Probability and Statistics, Matrix Theory, Machine Learning (Zhihua Zhou), Deep Learning (CS231n)

Summary

- Homepage: wenbohuang1002.github.io
- Google Scholar Cited 300+.
- I was mainly engaged in the Video Analysis and Ubiquitous Computing under the guidance of my supervisor. I have the ability to read and write English papers. During my study, I was able to actively track **CVPR**, **NIPS**, **ICML** and other top papers, carefully analyze **Github** codes and get used to paper with code mode. I have mastered the typesetting skills of **LaTeX** papers.
- I am familiar with **Python** language, **PyTorch**, **TensorFlow**, **Keras** and other deep learning frameworks. I studied CS231n and other deep learning courses , and participated in the horizontal project of machine vision (Suzhou Futai Information Technology Co., LTD., Garbage classification video processing system based on deep learning).
- I used to work as a laboratory administrator, can skillfully use Ubuntu operating system and be responsible for the maintenance of laboratory deep computing server (**5 RTX3090, 1 RTX2080ti and 1 GTX1080ti**).