Bin Deng

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Research Interests

Machine Learning, Pattern Recognition, Computer Vision, Image Processing

Education

South China University of Technology, Guangzhou **Sep. 2020 – Now**
PhD in Information and Communication Engineering

Shenzhen University, Shenzhen **Sep. 2015 – Jun. 2018**
MEng in Pattern Recognition and Intelligent System

South China Agricultural University, Guangzhou **Sep. 2011 – Jun. 2015**
BSc in Information and Computing Science

Experience

Kazan Federal University **Dec. 2016 – Feb. 2017**
Exchange Study *Kazan*

Shenzhen University **Jul. 2018 – May 2019**
Research Assistant *Shenzhen*

South China University of Technology **May 2019 – Aug. 2020**
Research Assistant *Guangzhou*

Honors and Awards

Outstanding Communist Party Member of South China University of Technology **2023**

Excellent Graduates **2018**

Outstanding Student of Guangdong Province (Graduate Level) **2018**

National Scholarship **2017**

Third Prize in National College Student Mathematics Competition (Mathematics Category) **2012**

Professional Services

Journal Reviewer: IEEE TIP, TMLR, IEEE TGRS, IEEE J-STARS, IEEE GRSL
Conference Reviewer: ICML(2023, 2024), NeurIPS(2023), ICCV(2023), ICLR(2024), CVPR(2024), ECCV(2024)

Publication: Pre-prints

Bin Deng and Kui Jia. Universal Domain Adaptation from Foundation Models: A Baseline Study | *link* **2023**

Bin Deng, Yabin Zhang, Hui Tang, Changxing Ding, Kui Jia†. On Universal Black-Box Domain Adaptation | *link* **2021**

Bin Deng, Yabin Zhang, Kui Jia. DETECT: A Deep Discriminative Clustering Baseline for Unsupervised and Universal Domain Adaptation | *link* **2020**

Publication: Journal (*equal contribution, †supervisor)

Bin Deng and Kui Jia†. Counterfactual Supervision-Based Information Bottleneck for Out-of-Distribution Generalization. *Entropy.* | SCI | *Publication link* **2023**

Yabin Zhang*, **Bin Deng***, Hui Tang, Lei Zhang, Kui Jia†. Unsupervised Multi-Class Domain Adaptation: Theory, Algorithms, and Practice. *TPAMI.* | SCI, IF=23.6 | *Publication link* **2022**

Bin Deng, Sen Jia, Daming Shi. Deep Metric Learning-Based Feature Embedding for Hyperspectral Image Classification. *TGRS.* | SCI, IF=8.2 | *Publication link* **2020**

Sen Jia†, Zhijie Lin, **Bin Deng**, Jiasong Zhu, Qingquan Li. Cascade Superpixel Regularized Gabor Feature Fusion for Hyperspectral Image Classification. *TNNLS*. | SCI, IF=10.4 | *Publication link* **2020**

Sen Jia†, **Bin Deng**, Jiasong Zhu, Xiuping Jia, Qingquan Li. Local Binary Pattern-Based Hyperspectral Image Classification With Superpixel Guidance. *TGRS*. | SCI, IF=8.2 | *Publication link* **2018**

Sen Jia†, **Bin Deng**, Jiasong Zhu, Xiuping Jia, Qingquan Li. Superpixel-Based Multitask Learning Framework for Hyperspectral Image Classification. *TGRS*. | SCI, IF=8.2 | *Publication link* **2017**

Sen Jia†, **Bin Deng**, Qiang Huang. An efficient superpixel-based sparse representation framework for hyperspectral image classification. *IJVML*. | SCI | *Publication link* **2017**

Publication: Conference (†supervisor)

Yabin Zhang, **Bin Deng**, Kui Jia†, Lei Zhang. Label Propagation with Augmented Anchors: A Simple Semi-supervised Learning Baseline for Unsupervised Domain Adaptation. In *ECCV*. | EI | *Publication link* **2020**

Zhijie Lin, Sen Jia†, **Bin Deng**. Multi-Task Embedded Convolutional Neural Network for Hyperspectral Image Classification. In *ICME*. | EI | *Publication link* **2019**

Bin Deng and Daming Shi. Relation Network for Hyperspectral Image Classification. In *ICMEW*. | EI | *Publication link* **2019**

Sen Jia†, **Bin Deng**, Huimin Xie, Lin Deng. A Gabor feature fusion framework for hyperspectral imagery classification. In *ICIP*. | EI | *Publication link* **2017**

Sen Jia†, **Bin Deng**. An Efficient Gabor Feature-Based Multi-task Joint Support Vector Machines Framework for Hyperspectral Image Classification. In *CCPR*. | EI | *Publication link* **2016**

Sen Jia†, **Bin Deng**. Superpixel-level sparse representation-based classification for hyperspectral imagery. In *IGARSS*. | EI | *Publication link* **2016**

Patents (†supervisor)

Sen Jia†, **Bin Deng**, Jiasong Zhu, Lin Deng, Qingquan Li. A Method and Apparatus for Image Fusion-based Classification. *Authorization Number: CN109472199B.* **2022**

Sen Jia†, **Bin Deng**, Lin Deng. A Method and System for Hyperspectral Image Classification Based on Superpixel-level Information Fusion. *Authorization Number: CN106469316B.* **2020**