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

Excellent Graduates **2018**

Excellent Students of Guangdong Province **2018**

National Scholarship **2017**

Third Prize in National College Student Mathematics Competition **2012**

Professional Services

Journal Reviewer: IEEE TIP, TMLR, IEEE J-STARS, IEEE GRSL
Conference Reviewer: ICML(2023), NeurIPS(2023), ICCV(2023)

Publication: Pre-prints (†supervisor)

Bin Deng and Kui Jia†. Universal Domain Adaptation from Foundation Models | *link* **May 2023**

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

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

Publication: Journal (*equal contribution, †supervisor)

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

Yabin Zhang*, **Bin Deng***, Hui Tang, Lei Zhang, Kui Jia†. Unsupervised Multi-Class Domain Adaptation: Theory, Algorithms, and Practice. *TPAMI.* | *Publication link* **Nov. 2020**

Bin Deng, Sen Jia, Daming Shi. Deep Metric Learning-Based Feature Embedding for Hyperspectral Image Classification. *TGRS* | *Publication link* **Sep. 2019**

Sen Jia†, Zhijie Lin, **Bin Deng**, Jiasong Zhu, Qingquan Li. Cascade Superpixel Regularized Gabor Feature Fusion for Hyperspectral Image Classification. *TNNLS* | *Publication link* **Feb. 2019**

Sen Jia†, **Bin Deng**, Jiasong Zhu, Xiuping Jia, Qingquan Li. Local Binary Pattern-Based Hyperspectral Image Classification With Superpixel Guidance. *TGRS* | *Publication link* **Oct. 2017**

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

Sen Jia†, **Bin Deng**, Qiang Huang. An efficient superpixel-based sparse representation framework for hyperspectral image classification. *IJVML* | *Publication link* **Jun. 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*. | *Publication link* **Oct. 2020**

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

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

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

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

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