

# Allan Z. Ding

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CONTACT INFORMATION	6823 St. Charles Avenue, New Orleans, LA 70118, USA	Homepage: <a href="http://www.cs.tulane.edu/~zding1/">http://www.cs.tulane.edu/~zding1/</a> mail: <a href="mailto:zding1@tulane.edu">zding1@tulane.edu</a> Cell Phone: +1(617)-390-6211
APPOINTMENT	Tenure-Track Assistant Professor, Department of Computer Science, Tulane University	01/2021 – Present
	Tenure-Track Assistant Professor, Department of CIT, Indiana University-Purdue University Indianapolis	08/2018 – 12/2020
EDUCATION	<b>Northeastern University, Boston, USA</b> <i>Doctor of Philosophy,</i> <b>Supervisor:</b> Yun Raymond Fu <b>Thesis:</b> Deep Multi-Factor Forensic Face Recognition (NIJ Fellowship)	09/2013–06/2018 <b>Major:</b> Computer Engineering, <b>GPA:</b> 3.9
	<b>University of Electronic Science and Technology of China,</b> <i>Master of Engineering,</i> <b>Supervisor:</b> Yue Wu, Ke Lu <b>Thesis:</b> Research on Manifold Learning Techniques for Video-based Face Recognition	09/2010–06/2013 <b>Major:</b> Computer Software and Theory, <b>GPA:</b> 3.2
	<b>University of Electronic Science and Technology of China,</b> <i>Bachelor of Engineering,</i> <b>Advisor:</b> Ke Lu <b>Thesis:</b> Research on Novel Data Model for Video-based Face Recognition	09/2006–07/2010 <b>Major:</b> Information Security, <b>GPA:</b> 3.6
RESEARCH INTERESTS	My research interest lies in computer vision and machine learning, with a focus on developing scalable algorithms to learn robust representations from large-scale data. § Deep Learning (Deep Auto-Encoder, Deep CNN, LSTM, Generative Model) § Transfer Learning, Multi-view Learning § Low-Rank Modeling, Manifold Learning, Subspace Learning, Metric Learning § Large-scale Data Analysis, Social Media Analytics	
RESEARCH EXPERIENCE	<b>SMILE lab at Northeastern University,</b> <b>Position:</b> Research Assistant, <b>Topic:</b> Low-Rank Modeling & Deep Learning for Applied Machine Learning	09/2013–06/2018 <b>Supervisor:</b> Prof. Yun Raymond Fu
	<b>Microsoft Research,</b> <b>Position:</b> Research Intern, <b>Topic:</b> Generative Model for Low-Shot Learning	06/2017–09/2017 <b>Supervisor:</b> Yandong Guo, Lei Zhang
	<b>Adobe Systems Incorporated,</b> <b>Position:</b> Data Scientist Intern, <b>Topic:</b> Multi-touch Attribution	05/2016–07/2016 <b>Supervisor:</b> William Yan
	<b>Army Research Lab,</b> <b>Position:</b> Research Assistant (Summer Intern), <b>Topic:</b> Deep Transfer Learning	06/2015–08/2015 <b>Supervisor:</b> Nasser M. Nasrabadi
TEACHING EXPERIENCE	<b>Instructor:</b> CMPS 2200: Introduction to Algorithm, Tulane, 2021 Spring <b>Instructor:</b> CIT 21400: Database Implementation and Administration, IUPUI, 2020 Fall <b>Instructor:</b> Tech 58100: Deep Learning and Applications, IUPUI, 2019 Spring <b>Instructor:</b> CIT 47900: Database Implementation and Administration, IUPUI, 2018/2019/2020 Fall	
CONFERENCE TUTORIAL	[T-1] <b>Zhengming Ding</b> , Hongfu Liu and Handong Zhao. <i>Deep Multi-view Data Analytics</i> , Thirty-Third AAAI Conference on Artificial Intelligence (AAAI-19), Honolulu, Hawaii, USA	

- [T-2] **Zhengming Ding**, Ming Shao, Yun Fu. *Large-Scale Multi-view Data Analysis*, IEEE International Conference on Big Data, 2018, Seattle, WA, USA.
- [T-3] **Zhengming Ding**, Ming Shao, Yun Fu. *Multi-view Visual Data Analytics*, IEEE International Conference on Computer Vision and Pattern Recognition, 2018, Salt Lake City, Utah.
- [T-4] **Zhengming Ding**, Handong Zhao, Yun Fu. *Multi-view Face Representation*, IEEE International Conference on Automatic Face and Gesture Recognition, 2017, in Washington, DC.

PUBLICATIONS Summary:

- more than 100 peer-reviewed research papers, including one SPIE Lockheed Martin Best Paper Award, 2016 and one Best Paper Candidate in ACM MM 2017.
- Full Research Papers published in various prestigious conferences, including CVPR, ECCV, IJ-CAI, AAAI, ICDM, ACM MM etc., and prestigious journals including IEEE TPAMI (impact factor 9.455), IEEE TNNLS (impact factor 7.982), IEEE TIP (impact factor 5.071), etc.
- 2197 citations; h-index: 27; i10-index: 56 (by Jan. 2021).

Selected Journal Paper:

- [J-1] Shuhui Jiang, **Zhengming Ding**, and Yun Fu. *Heterogeneous Recommendation via Deep Low-rank Sparse Collective Factorization*. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), (in press) 2018. <https://ieeexplore.ieee.org/document/8620376>
- [J-2] **Zhengming Ding**, Ming Shao, Wonjun Hwang, Sungjoo Suh, Jae-Joon Han, Changkyu Choi, and Yun Fu. *Robust Discriminative Metric Learning for Image Representation*. IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), (in press) 2018. <https://ieeexplore.ieee.org/abstract/document/8522031>
- [J-3] **Zhengming Ding**, and Yun Fu. *Deep Transfer Low-Rank Coding for Cross-Domain Learning*. IEEE Transactions on Neural Networks and Learning Systems (TNNLS), (in press) 2018.
- [J-4] **Zhengming Ding**, Ming Shao, and Yun Fu. *Generative Zero-Shot Learning via Low-Rank Embedded Semantic Dictionary*. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2018 (in press) <https://ieeexplore.ieee.org/abstract/document/8451907/>.
- [J-5] Shuyang Wang, **Zhengming Ding**, and Yun Fu. *Cross-Generation Kinship Verification with Sparse Discriminative Metric*, IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2018 (in press) <https://ieeexplore.ieee.org/abstract/document/8424076/>.
- [J-6] Kai Li, **Zhengming Ding**, Sheng Li, and Yun Fu. *Towards Resolution-Invariant Person Re-identification via Projective Dictionary Learning*. IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2018, (in press).
- [J-7] Zhiqiang Tao, Hongfu Liu, Sheng Li, **Zhengming Ding**, and Yun Fu. *Robust Spectral Ensemble Clustering via Rank Minimization*. ACM Transactions on Knowledge Discovery from Data (TKDD), 2018, (in press).
- [J-8] Lichen Wang, **Zhengming Ding**, and Yun Fu. *Low-Rank Transfer Human Motion Segmentation*, IEEE Transactions on Image Processing (TIP), 2018, (in press) <https://ieeexplore.ieee.org/abstract/document/8467334>.
- [J-9] **Zhengming Ding**, and Yun Fu. *Dual Low-Rank Decompositions for Robust Cross-View Learning*, IEEE Transactions on Image Processing (TIP), 2018 (accepted) <https://ieeexplore.ieee.org/document/8438505/>.
- [J-10] **Zhengming Ding**, Nasser Nasrabadi, and Yun Fu. *Semi-supervised Deep Domain Adaptation via Coupled Neural Networks*, IEEE Transactions on Image Processing (TIP), vol. 27, no. 11, pp. 5214-5224, 2018.
- [J-11] Hongfu Liu, Ming Shao, **Zhengming Ding**, and Yun Fu. *Structure-Preserved Unsupervised Domain Adaptation*, IEEE Transactions on Knowledge and Data Engineering (TKDE), 2018 (in press) <https://ieeexplore.ieee.org/document/8370901/>.
- [J-12] Shuang Li, Shiji Song, Gao Huang, **Zhengming Ding**, and Cheng Wu. *Domain Invariant and Class Discriminative Feature Learning for Visual Domain Adaptation*, IEEE Transactions on Image Processing (TIP), vol. 27, no. 9, pp. 4260-4273, 2018.

- [J-13] **Zhengming Ding**, and Yun Fu. *Robust Multi-view Data Analysis through Collective Low-Rank Subspace*. IEEE Transactions on Neural Networks and Learning Systems (TNNLS), vol. 29, no. 5, pp. 1986-1997, 2018.
- [J-14] **Zhengming Ding**, Ming Shao, and Yun Fu. *Incomplete Multisource Transfer Learning*. IEEE Transactions on Neural Networks and Learning Systems (TNNLS), vol. 29, no. 2, pp. 310-323, 2018.
- [J-15] **Zhengming Ding**, and Yun Fu. *Deep Domain Generalization with Structured Low-Rank Constraint*, IEEE Transactions on Image Processing (TIP), vol. 27, no. 1, pp. 304-313, 2018.
- [J-16] Shuyang Wang, **Zhengming Ding**, and Yun Fu. *Marginalized Denoising Dictionary Learning with Locality Constraint*, IEEE Transactions on Image Processing (TIP), vol. 27, no. 1, pp. 500-510, 2018.
- [J-17] Handong Zhao, Hongfu Liu, **Zhengming Ding** and Yun Fu. *Consensus Regularized Multi-View Outlier Detection*. IEEE Transactions on Image Processing (TIP), vol. 27, no. 1, pp. 236-248, 2018.
- [J-18] Handong Zhao, **Zhengming Ding**, and Yun Fu. *Ensemble Subspace Segmentation Under Block-wise Constraints*. IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), vol. 28, no. 7, pp. 1526-1539, 2018.
- [J-19] **Zhengming Ding**, and Yun Fu. *Robust Transfer Metric Learning for Image Classification*. IEEE Transactions on Image Processing (TIP), vol. 26, no.2, pp. 660-670, 2017.
- [J-20] Yu Kong, **Zhengming Ding**, Jun Li, and Yun Fu. *Deeply Learned View-Invariant Features for Cross-View Action Recognition*. IEEE Transactions on Image Processing (TIP), vol. 26, no. 6, pp. 3028-3037, 2017.
- [J-21] **Zhengming Ding**, Ming Shao, and Yun Fu. *Missing Modality Transfer Learning via Latent Low-Rank Constraint*. IEEE Transactions on Image Processing (TIP), vol. 24, no. 11, pp. 4322-4334, 2015

Selected Conference Paper:

- [C-1] **Zhengming Ding**, Sheng Li, Ming Shao and Yun Fu. *Graph Adaptive Knowledge Transfer for Unsupervised Domain Adaptation*. European Conference on Computer Vision (ECCV), pp. 37-52, 2018.
- [C-2] **Zhengming Ding**, Ming Shao, Sheng Li, and Yun Fu. *Generic Embedded Semantic Dictionary for Robust Multi-label Classification*, IEEE International Conference on Big Knowledge (ICBK), 2018, (accepted).
- [C-3] Kai Li, **Zhengming Ding**, Kunpeng Li, Yulun Zhang, and Yun Fu. *Support Neighbor Loss for Person Re-Identification*. ACM International Conference on Multimedia (ACM MM), pp. 1492-1500, 2018.
- [C-4] **Zhengming Ding**, Ming Shao, and Yun Fu. *Robust Multi-view Representation: A Unified Perspective from Multi-view Learning to Domain Adaption*. International Joint Conference on Artificial Intelligence (IJCAI), pp. 5434-5440, 2018 (**Survey Track**).
- [C-5] Lichen Wang, **Zhengming Ding**, and Yun Fu. *Adaptive Graph Guided Embedding for Multi-label Annotation*, International Joint Conference on Artificial Intelligence (IJCAI), pp. 2798-2804, 2018.
- [C-6] **Zhengming Ding**, Yandong Guo, Lei Zhang, and Yun Fu, *One-Shot Face Recognition via Generative Learning*, IEEE Conference on Automatic Face and Gesture Recognition (FG), 2018.
- [C-7] Yue Wu, **Zhengming Ding**, Hongfu Liu, Joseph Robinson, and Yun Fu, *Kinship Classification through Latent Adaptive Subspace*, IEEE Conference on Automatic Face and Gesture Recognition (FG), 2018.
- [C-8] Kai Li, Sheng Li, **Zhengming Ding**, Weidong Zhang, and Yun Fu. *Latent Discriminant Subspace Representations for Multi-view Outlier Detection*, 32nd AAAI Conference on Artificial Intelligence (AAAI), 2018
- [C-9] Kai Li, **Zhengming Ding**, Sheng Li, and Yun Fu. *Semi-coupled Projective Dictionary Learning for Low-Resolution Person Re-Identification*, 32nd AAAI Conference on Artificial Intelligence (AAAI), 2018
- [C-10] Lichen Wang, **Zhengming Ding**, and Yun Fu. *Transferable Subspace for Human Motion Segmentation*, 32nd AAAI Conference on Artificial Intelligence (AAAI), 2018
- [C-11] **Zhengming Ding**, Ming Shao and Yun Fu. *Low-Rank Embedded Ensemble Semantic Dictionary for Zero-Shot Learning*. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2017.
- [C-12] Shuhui Jiang, **Zhengming Ding** and Yun Fu. *Deep Low-rank Sparse Collective Factorization for Cross-Domain Recommendation*. ACM Multimedia (MM), 2017 (**Best Paper Candidate**)

- [C-13] Wencang Zhao, Yu Kong, **Zhengming Ding** and Yun Fu. *Deep Active Learning Through Cognitive Information Parcels*. ACM Multimedia (MM), 2017(poster full research paper)
- [C-14] Zhiqiang Tao, Hongfu Liu, Sheng Li, **Zhengming Ding** and Yun Fu. *From Ensemble Clustering to Multi-View Clustering*. International Joint Conference on Artificial Intelligence (IJCAI), 2017.
- [C-15] Shuyang Wang, **Zhengming Ding** and Yun Fu. *Feature Selection Guided Auto-Encoder*. 31st AAAI Conference on Artificial Intelligence (AAAI), 2017.
- [C-16] Handong Zhao, **Zhengming Ding** and Yun Fu. *Multi-view Clustering via Deep Matrix Factorization*. 31st AAAI Conference on Artificial Intelligence (AAAI), 2017.
- [C-17] **Zhengming Ding**, Ming Shao and Yun Fu. *Deep Robust Encoder through Locality Preserving Low-Rank Dictionary*. European Conference on Computer Vision, (ECCV), 2016.
- [C-18] Shuyang Wang, **Zhengming Ding** and Yun Fu. *Coupled Marginalized Auto-encoders for Cross-domain Multi-view Learning*. International Joint Conference on Artificial Intelligence (IJCAI), 2016.
- [C-19] **Zhengming Ding**, Nasser Nasrabadi and Yun Fu. *Deep Transfer Learning for Automatic Target Classification: MWIR to LWIR*. SPIE Defense+ Security, 2016 (**Best Paper Award**).
- [C-20] **Zhengming Ding**, Ming Shao and Yun Fu. *Transfer Learning for Image Classification with Incomplete Multiple Sources*. The annual International Joint Conference on Neural Networks (IJCNN), 2016
- [C-21] **Zhengming Ding**, Nasser M Nasrabadi and Yun Fu. *Task-driven Deep Transfer Learning for Image Classification*. 41st IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2016
- [C-22] **Zhengming Ding** and Yun Fu. *Robust Multi-view Subspace Learning through Dual Low-rank Decompositions*. Thirtieth AAAI Conference on Artificial Intelligence (AAAI), 2016.
- [C-23] Ming Shao, **Zhengming Ding**, Handong Zhao and Yun Fu. *Spectral Bisection Tree Guided Deep Adaptive Exemplar Autoencoder for Unsupervised Domain Adaptation*. Thirtieth AAAI Conference on Artificial Intelligence (AAAI), 2016.
- [C-24] Handong Zhao, **Zhengming Ding**, and Yun Fu. *Pose-dependent Low-Rank Embedding for Head Pose Estimation*. Thirtieth AAAI Conference on Artificial Intelligence (AAAI), 2016.
- [C-25] Handong Zhao, **Zhengming Ding**, Ming Shao, and Yun Fu. *Part-Level Regularized Semi-Nonnegative Coding for Semi-Supervised Learning*. IEEE International Conference on Data Mining (ICDM), 2015 .
- [C-26] **Zhengming Ding**, Ming Shao, and Yun Fu. *Deep Low-rank Coding for Transfer Learning*. International Joint Conference on Artificial Intelligence (IJCAI), 2015
- [C-27] Ming Shao, Sheng Li, **Zhengming Ding**, and Yun Fu. *Deep Linear Coding for Fast Graph Clustering*. International Joint Conference on Artificial Intelligence (IJCAI), 2015.
- [C-28] **Zhengming Ding**, Sungjoo Suh, Jae-Joon Han, Changkyu Choi, and Yun Fu. *Discriminative Low-Rank Metric Learning for Face Recognition*. International Conference on Automatic Face and Gesture Recognition (FG), 2015.
- [C-29] Ming Shao, **Zhengming Ding**, and Yun Fu. *Sparse Low-Rank Fusion based Deep Features for Missing Modality Face Recognition*. International Conference on Automatic Face and Gesture Recognition (FG), 2015.
- [C-30] Handong Zhao, **Zhengming Ding**, and Yun Fu. *Block-wise Constrained Sparse Graph for Face Image Representation*. International Conference on Automatic Face and Gesture Recognition (FG), 2015.
- [C-31] **Zhengming Ding**, Yun Fu. *Low-Rank Common Subspace for Multi-View Learning*. IEEE International Conference on Data Mining (ICDM, **regular paper**), 2014.
- [C-32] Chengcheng Jia, Yu Kong, **Zhengming Ding** and Yun Fu. *Latent Tensor Transfer Learning for RGB-D Action Recognition*. The 22nd ACM International Conference on Multimedia (ACM MM, **long paper**), 2014.
- [C-33] **Zhengming Ding**, Ming Shao and Yun Fu. *Latent Low-Rank Transfer Subspace Learning for Missing Modality Recognition*. Twenty-Eighth AAAI Conference on Artificial Intelligence (AAAI), 2014.

Patent:

- [P-1] Wonjun Hwang, Sungjoo Suh, JaeJoon Han, ChangKyu Choi, Yun Fu, **Zhengming Ding**, Ming Shao. *Method of extracting feature of image to recognize object*. US 20170236000 A1

[P-2] Sungjoo Suh, Yun Fu, **Zhengming Ding**, ChangKyu Choi and Jaejoon Han. *Apparatus and Method for Extracting Feature Of Image Including Object*. United States Patent Application 20160086047.

HONORS	Chinese Government Award for Outstanding Self-Financed Students Abroad,	2017
	ACM Multimedia Best Paper Candidate,	2017
	Travel Award for National Institute of Justice (NIJ) Forensic Science Research & Development Poster Session at the Pittcon 2018 Conference & Expo,	2017
	NEU College of Engineering Outstanding Graduate Research Award,	2017
	FG/CVPR Doctoral Consortium Travel Award,	2017
	Graduate Student Government Travel Award, NEU,	2017/2016/2015
	National Institute of Justice (NIJ) Fellowship,	2016
	SPIE Lockheed Martin Best Paper Award,	2016
	IJCAI/AAAI Student Travel Award,	2016
	ICDM/ACM MM Student Travel Award,	2014
	National Graduate Scholarship (China),	2012
	National Inspirational Scholarship (China),	2007

PROFESSIONAL  
SERVICES

**Associate Editor**

- SPIE Journal of Electronic Imaging (JEI)

**Guest Editor**

- Multimedia Tools and Applications: Special Issue: Transfer Learning for Multimedia Applications

**Program Chair**

- CVPR-19 Workshop on Analysis and Modeling of Faces and Gestures (AMFG).
- 3rd International Workshop on Big Data Transfer Learning (BDTL)

**Senior Program Committee (SPC)**

- 33rd AAAI Conference on Artificial Intelligence (AAAI-19)

**Program Committee Member**

- 28th International Joint Conference on Artificial Intelligence (IJCAI-19)
- IEEE Conference on Computer Vision and Pattern Recognition 2018 (CVPR 2018)
- The 13th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2018)
- The 1st IEEE International Conference on Multimedia Information Retrieval and Processing (MIPR 2018)
- The 7th IEEE Workshop on Analysis and Modeling of Faces and Gestures in Conjunction with ICCV2017 (AMFG2017)
- International Conference on Affective Computing and Intelligent Interaction (ACII), 2017
- IEEE International Conference on Machine Learning and Applications (ICMLA), 2016/2017

**Publicity Chair**

- The 2nd International Workshop on Big Data Transfer Learning (BDTL) in Conjunction with IEEE BigData Conference, 2017
- The 7th IEEE Workshop on Analysis and Modeling of Faces and Gestures in Conjunction with ICCV2017 (AMFG2017)

**Journal Reviewer**

Multiple IEEE Transactions, e.g., TPAMI, TKDE, TIP, TNNLS, TMM and so on.

**Conference(External) Reviewer**

CVPR2018, AAAI 2016-2017, FG 2015-2018, ECCV 2016, NIPS 2016, CVPR 2015-2017, ICMLA 2016, ACPR 2015, ACM MM 2015, SDM 2015, WACV 2014, BMVC 2014.

**Professional Associations**

- Institute of Electrical and Electronics Engineers (IEEE)
- Association for the Advancement of Artificial Intelligence (AAAI)