

# MIN JIANG

PhD • Morgantown, WV • 304-376-8602 • [mijiang@mix.wvu.edu](mailto:mijiang@mix.wvu.edu)  
LinkedIn: <https://www.linkedin.com/in/min-jiang/> • Github: <https://github.com/GardenerMin>

## PROFESSIONAL SUMMARY

I have 5-year research experience in solving real-world problems with **machine learning/deep learning** and **computer vision** solutions. I successfully accomplished **4** projects and published **6** journal papers and **2** conference papers. I am specialized in **detection and estimation, image processing, reinforce learning, large-scale data analytics, statistical modeling, face recognition**, and eager to join a fast-moving organization and provide innovative and implementable solutions.

## SKILLS

- Programming Language: 4-year Python, 6-year Matlab, 2-year C & SQL.
- Libraries: Tensorflow, Caffe, OpenCV, Scikit-learn, Numpy, Pandas, Matplotlib.
- Tools: Visual Studio, Tableau, Hadoop, CACD

## EDUCATION

<b>PhD:</b> Electrical Engineering	<b>West Virginia University</b> - Morgantown, WV	05/2020
<b>M.S:</b> Electrical Engineering	<b>China University of Mining and Technology</b> - Beijing, China	06/2010
<b>B.S:</b> Electrical Engineering	<b>China University of Mining and Technology</b> - Beijing, China	06/2007

## RESEARCH EXPERIENCES

**Graduate Research Assistant** West Virginia University - Morgantown, West Virginia 08/2013 - Current  
**Project: Body Mass Index (BMI) Estimation from Visual Appearance of Face and Body.**

- Developed a computational framework for estimating body weight from 2D body images which consists of **feature detection and computation**, and **training**. It outperforms recent state-of-the-art approaches.
- Systematically analyzed visual BMI **estimation problem** from feature level by **deploying several deep face models** and **geometric models**. This is the first work on this topic.
- Proposed a two-stage learning method (includes **reinforcement learning** and **estimator optimization**) for BMI estimation from face images which outperforms regression-based approaches.
- Proposed a **label ranking based deep neural network (DNN)** for BMI estimation from **large-scale** BMI face images dataset with significant improvement on facial BMI estimation.
- Proposed a modeling-based BMI estimation approach for **3D reconstruction** of body data.

**Project: Autism Spectrum Disorder (ASD) Detection.**

- Developed a method to analyze the differences of photos taken by people with ASD and without ASD from the **visual features and deep features**. This is the first work to analyze autism with computer vision method.

**Project: Face Recognition.**

- Collaborated with a team to propose a body pose detection based approach for unconstraint **face detection** on a large dataset that achieved one of the best performance in UCCS face detection challenge.
- Proposed a **discriminative common feature subspace learning** method for large-scale cross-age face recognition which outperforms most existing methods.

**Project: 1D/2D Astronomical Signal Denoising and Detection.**

- Proposed a **wavelet-based method** for efficiently denoising de-dispersed radio signal of Rotating Radio Transients (RRATs) which contributed to significantly reducing the parameters' errors (16%-90%) of 8 RRATs.

- Proposed a **curvelet-based denoising** method for isolated astronomical pulses signal which leads to higher detection rate (98.7%) than existing denoising methods.

## **WORK HISTORY**

**Electrical Engineer** China Coal Technology & Engineering Group Corp - Beijing, China     07/2010 - 06/2012

- Power distribution system and Programmable Logic Controller (PLC) design for industrial buildings.

## **HONORS AND AWARDS**

2017            Rank Top 3 of UCCS Face Detection Challenge

2008-2010 Outstanding Student Honor of China University of Mining and Technology

2004-2007 Outstanding Student Honor of China University of Mining and Technology

## **PUBLICATIONS**

### ***Journal Articles***

- **M. Jiang**, G. Guo, "Body Weight Analysis from Human Body Images," IEEE Transactions on Information Forensics and Security, vol. 14, no. 10, pp. 2676-2688, Oct. 2019.
- **M. Jiang**, Y. Shang, G. Guo, "On Visual BMI Analysis from Facial Images", Image and Vision Computing, vol. 89, pp. 183-196, 2019.
- **M. Jiang**, B.Y. Cui, Y. F. Yu, Z.C. Cao, "DM-free Curvelet based Denoising for Astronomical Single Pulses Detection", vol. 7, pp. 107389-107399, IEEE ACCESS, 2019.
- **M. Jiang**, B.Y. Cui, N.A. Schmid, M.A. McLaughlin and Z.C. Cao, "Wavelet Denoising of Radio Observations of Rotating Radio Transients (RRATs): Improved Timing Parameters for Eight RRATs," The Astrophysical Journal, 847, no. 1 (2017): 75.
- **M. Jiang**, Y. Shang, G. Guo, "A Computational Approach to Body Mass Index from 3D Reconstruction of Dressed People", IET Image Processing, 2020.
- Y. F. Yu, Q. Wang, **M. Jiang**\*(corresponding author), "Discriminative Common Feature Subspace Learning for Age-invariant Face Recognition," IET Biometrics, 2019.
- Y. F. Yu, G. X. Xu, **M. Jiang**, H. Zhu, D. Q. Dai, H. Yan, "Joint Transformation Learning via L2,1-Norm Metric for Robust Graph Matching", IEEE Transactions on Cybernetics, 2019.
- Y. F. Yu, C.X. Ren, **M. Jiang**, M.Y. Sun, D.Q. Dai, and G. Guo, "Sparse Approximation to Discriminant Projection Learning and Application to Image Classification", Pattern Recognition, p.106963, 2019.

### ***Articles Under Review***

- **M. Jiang**, G. Guo, G. Mu, "Visual BMI estimation from face images using label distribution based method", Computer Vision and Image Understanding, Major Revision.

### ***Conference Paper***

- G. Manuel, P. Y. Hu, C. Herrmann, C. H. Chan, **M. Jiang** et al. "Unconstrained face detection and open-set face recognition challenge." In 2017 IEEE International Joint Conference on Biometrics (IJCB), pp. 697-706, 2017
- Y. Zhang, **M. Jiang**, Y. Wu, X. Zhou, "An automatic rebar splitting system based on two-level of the chain transmission". IEEE International Conference on Cyber Technology in Automation, Control, and Intelligent Systems (CYBER), pp. 587-590, 2015.