

# Nan Chen

Phone: +86 15166565621 | Age: 23 | Sex: Female | Email: [nchen19@lzu.edu.cn](mailto:nchen19@lzu.edu.cn)

## EDUCATION

### Lanzhou University

*School of Information Science and Engineering, Computer Science*

Master candidate 09/2019-Present

GPA: 3.59/4

### Taiyuan University of Technology

*College of Information Engineering, Automation*

B.E. 09/2014-06/2018

GPA: 3.47/4

## RESEARCH INTEREST

Machine Learning; Complex Network; Brain Imaging; Network Neuroscience

## RESEARCH EXPERIENCE

### Ubiquitous Awareness and Intelligent Solution Lab

*Lanzhou University*

04/2019-Present

Master candidate

- Engaged in researches of graph modeling and mining, especially in dynamic and multimodal brain networks
- 5 journal papers (JCR Q1) and 1 conference paper (EI) have been accepted (first author 2, other author 4)
- 3 papers (first author, JCR Q1) are still under review

## WORK EXPERIENCE

### Data Intelligence Centre

*Inspur*

07/2018-04/2019

Artificial Intelligence Algorithm Engineer

- Participated in the Knowledge Graph Project of China Foreign Languages Publishing Administration, responsible for the development of fundamental NLP tools and the visualization of knowledge graph
- Participated in the precipitation trend prediction project of Guizhou Meteorological Bureau, responsible for data processing and deep model construction
- Participated in the KGO search project of China Knowledge Centre for Engineering Sciences and Technology, responsible for the searching algorithm

## PUBLICATIONS

**Nan Chen**, Jie Shi, Yongchao Li, Shanling Ji, Ying Zou, Lin Yang, Zhijun Yao, and Bin Hu. "Decreased dynamism of overlapping brain sub-networks in Major Depressive Disorder". *Journal of Psychiatric Research*, 2021, 133: 197-204.

**Nan Chen**, Guangyao Liu, Man Guo, Yongchao Li, Zhijun Yao, and Bin Hu. "Calcarine as a bridge between brain function and structure in Irritable Bowel Syndrome: a fMRI-DTI based multiplex network analysis". *Journal of Gastroenterology and Hepatology*, 2020.

**Nan Chen**, Man Guo, Yongchao Li, Shan Li, Zhijun Yao, and Bin Hu. "Estimation of discriminative multimodal connectivity using message-passing-based nonlinear network fusion". *Brain Connectivity*, 2020. **Under review**

**Nan Chen**, Lirong Teng, Man Guo, Yongchao Li, Zhengwu Yang, Yu Fu, Zhijun Yao, and Bin Hu. "Automatic diagnosis of Major Depressive Disorder with integration of dynamic and static properties of brain functional network". *Artificial Intelligence in Medicine*, 2020. **Under review**

Hong Chai, **Nan Chen**, Shan Li, and Lei Fang. "Fusing intensity, texture, shape and deep model-learned information of nodules to differentiate lung cancer and pulmonary tuberculosis on PET/CT images". *Annals of Nuclear Medicine*, 2020. (Co-first Author) **Under review**

Yongchao Li, **Nan Chen**, Yin Wang, Lin Yang, Weihao Zheng, Zhijun Yao, and Bin Hu. "Integration of a novel attribute and classical topology metrics of hyper-networks for automatic diagnosis of Major depressive disorder". *IEEE HealthCom 2020*, 2020: IEEE.

Yinghui Zhang, Yin Wang, **Nan Chen**, Man Guo, Xiuzhen Wang, Guangcai Chen, Yongchao Li, Lin Yang, Shan Li, Zhijun Yao, and Bin Hu. "Age-Associated differences of modules and hubs in brain functional networks". *Frontiers in Aging Neuroscience*, 2021, 12: 511.

Guangyao Liu, Shan Li, **Nan Chen**, Ziyang Zhao, Man Guo, Hong Liu, Jie Feng, Dekui Zhang, Zhijun Yao, and Bin Hu. “Vulnerable functional connections in irritable bowel syndrome patients rather than structure”. *Journal of Neurogastroenterology and Motility*, 2020. **In Press**

Man Guo, Tiancheng Wang, Zhe Zhang, **Nan Chen**, Yongchao Li, Yin Wang, Zhijun Yao, and Bin Hu. “Diagnosis of major depressive disorder using whole-brain effective connectivity networks derived from resting-state functional MRI”. *Journal of Neural Engineering*, 2020, 17(5): 056038.

## HONORS & AWARDS

---

**Second Prize**, Freescale Intelligence Car Competition, 2015

**First Prize**, China Undergraduate Mathematical Contest in Modeling, 2016

**Meritorious Winner**, The Interdisciplinary Contest in Modeling, 2017

**Individual Scholarship**, Taiyuan University of Technology, 2017

**Scholarship for Science and Technology Practice**, Taiyuan University of Technology, 2017

**The Third Prize Scholarship**, Lanzhou University, 2019

**The First Prize Scholarship**, Lanzhou University, 2020

## TECHNICAL SKILLS

---

**Languages:** Python, Java, C/C++, Matlab

**Pre-processing Tools:** DPABI (fMRI), PANDA (DTI), Brainstorm (MEG)

**Scientific Computing Libraries:** NumPy, SciPy and Pandas

**Drawing Tools:** Matplotlib, Seaborn, Origin

**Algorithms:** Perceptron, Naïve Bayes, Logistic Regression, Decision Tree, SVM, kNN, K-means, Bagging, Boosting, Random Forest, Adaboost, GBDT, XGBoost, EM, HMM, CRF, SVD, PCA, LSA, NMF, LDA, PageRank, BP and so on

**Frameworks:** TensorFlow, Keras

**Other:** Matrix Theory, Graph Theory, Optimization, Complex Network, Data Structure