Hao Miao

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Education

Master of Computer Science and Technology Sep. 2018 – April 2021

Nanjing University of Aeronautics and Astronautics(NUAA) *Nanjing, Jiangsu, China*

- College of Computer Science and Technology
- Supervised by Associate Professor. Senzhang Wang
- GPA: >=90/100, Ranking A

Bachelor of Computer Science and Technology Sep. 2014 – April 2018

Nanjing Tech University(NJTECH) *Nanjing, Jiangsu, China*

- College of Computer Science and Technology
- GPA: 85/100, Ranking 10/70

Selected Awards and Honors

Postgraduate Stage Sep. 2019 – Now

- CIKM2020 SIGIR Student Travel Grant
- First Class Scholarship for Graduate Students of NUAA(CNY 10000/year, 2019 – Now)
- Second Class Scholarship for Graduate Students of NUAA(CNY 8000/year, 2018 – 2019)
- Advanced individual in research and innovation of NUAA(2019 – 2020)
- Advanced postgraduate award of NUAA(2018 – 2019, 2019 – 2020)
- Advanced individual in Social Practice of NUAA(2018 – 2019)

Undergraduate Stage Sep. 2014 – June 2018

- Multiple First, Second and Third Class Sholarships of NJTECH
- Outstanding Graduate of Nanjing Tech University

Research Papers and Patents

Research Papers

- Senzhang Wang(*Supervisor*), **Hao Miao**, Hao Chen, Zhiqiu Huang, "Multi-task Adversarial Spatial-Temporal Networks for Crowd Flow Prediction" in **ACM CIKM2020**. Online, 19-23 October 2020.
- Senzhang Wang(*Supervisor*), **Hao Miao**, Jiyue Li, Jiannong Cao, "Spatio-Temporal Knowledge Transfer for Urban Crowd Flow Prediction via Deep Attentive Adaptation Networks" in IEEE Transactions on Intelligent Transportation System(**T-ITS2021**).
- **Hao Miao**, Yan Fei, Senzhang wang, Fang Wang, Danyan Wen, "Deep Learning based Origin-Destination Prediction via Contextual Information fusion" in Multimedia Tools and Applications 2020, ELSEVIER.
- **Hao Miao**, Senzhang Wang, Meiyue Zhang, Diansheng Guo, Funing Sun, Fan Yang. Deep Multi-View Channel-Wise Spatio-Temporal Network for Traffic Flow Prediction. AAAI-21 Workshop: AI for Urban Mobility.
- Jinlong Du, Senzhang Wang, **Hao Miao**. Multi-Channel Pooling Graph Neural Networks. IJCAI2021.
- Senzhang Wang, Meiyue Zhang, **Hao Miao**. MT-STNets: Multi-Task Spatial-Temporal Networks for Multi-Scale Traffic Prediction. SIAM International Conference on Data Mining(SDM2021).
- Chengyu Yin, Senzhang Wang, **Hao Miao**, "Recursive LSTM with Shift Embedding for Online User-Item Interaction Prediction" in **IEEE Cloud2020**, Online, 18-24 October 2020.
- Senzhang Wang, Meiyue zhang, **Hao Miao**, Philips. Yu. Multivariate Correlation-Aware Spatio-Temporal Graph Convolutional Networks for Multi-scale Traffic Prediction. ACM Transactions on Intelligent Systems and Technology(TITS2021).

Patents

- PRC Patent Application No.:2020104330805, A Method of Multi-task Urban Spatio-Temporal Prediction Based on Adversarial Learning, **Hao Miao**, Senzhang Wang, Jinlong Du.
- PRC Patent Application No.: 2019101957361, A Method of Crowd Prediction Based on Seq2Seq Generative Adversarial Network, Senzhang Wang(*Supervisor*), **Hao Miao**, Chengyu Yin.
- PRC Patent Application No.: 2019103063274, A Method of Inter-city Traffic Flow Joint Prediction Based on Deep Transfer Learning, Senzhang Wang, Chengyu Yin, **Hao Miao**.

Experience

Visiting Student Sep. 2019 – Nov. 2019

The Hong Kong Polytechnic University *Hongkong, China*

- Supervised by Professor. Jiannong Cao(*IEEE Fellow*)
- Topic: Spatio-Temporal data mining, Multi-task Learning

Research Intern Aug. 2020 – Jan. 2021

Tencent *Beijing, China*

- Supervised by Professor. Diansheng Guo
- Topic: Origin-Destination Prediction, Transfer Learning

Projects

CCF-Tencent Open Research Fund Oct. 2019 – Oct. 2020

- Title: Deep analysis and mining of dynamic urban spatio-temporal data based on multi-source data integration
- Developed a Multi-task adversarial spatial-temporal network model entitled **MT-ASTN** to predict the crowd flow and flow od simultaneously.
- Conducted a Deep Attentive Adaptation Network model named **ST-DAAN** to transfer cross-domain Spatio-Temporal knowledge for urban crowd flow prediction.

Additional Skills

Solid programming skills, especially using *Python*, *Numpy* and *Pytorch*.
Be Familiar with Big Data Platforms and Tools, such as *Hadoop, Spark*.
Personality: Kindly, Optimistic, Cooperative and Aspiring.