Xintong Wang

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EDUCATION

South China University of Technology	**School of Computer Science and Engineering**	**Master of Engineering**
GPA: 3.6/4	Computer Science	09.2016-06.2019
South China University of Technology	**School of Computer Science and Engineering**	**Bachelor of Engineering**
GPA: 3.4/4 First Class Honours	Computer Science & Technology	09.2012-06.2016

RESEARCH INTERESTS

- Machine Learning, Deep Learning, Computer Vision, Natural Language Processing
- Distributed Storage and Computing System

PUBLICATIONS

Xintong Wang, Jianming Lv. Cross-dataset Person Re-Identification Using Similarity Preserved Generative Adversarial Networks. KSEM-18: International Conference on Knowledge Science, Engineering and Management. 2018

Jianming Lv, Qing Li, **Xintong Wang**. T-CONV: A Convolutional Neural Network For Multi-scale Taxi Trajectory Prediction. BigComp-18: IEEE International Conference on Big Data and Smart Computing. 2018

HaitaoYang, Jianming Lv, Fei Xu, **Xintong Wang**, Yilin Huang, Lanting Xia, and Xuewu Zhu. Regression Approach for Optimal Purchase of Hosts Cluster in Fixed Fund for Hadoop Big-data Platform. 19th International Conference on Smart City, Transportation and Buildings. 2017

Jianming Lv, **Xintong Wang**, Fengtao Huang, Junjie Yang. TREST: A Hadoop Based Distributed Mobile Trajectory Retrieval System. DSC-16: IEEE International Conference on Data Science in Cyberspace. 2016

Haibiao Lin, Jianming Lv, Can Yang, Miaoyi Deng, Kaitao Wang, **Xintong Wang**. GPS Trajectory Mining : a Survey. In Journal of Computational Information Systems: Vol. 10 (16). 2014

RESEARCH EXPERIENCE

Neural Summarization Machine: A New Framework for Generation-based Summarization Comp@PolyU

Supervised by Prof. Wenjie Li, The Hong Kong Polytechnic University *Sep. 2018 - Dec. 2018*

- Proposed an neural summarization machine, a new framework for generation-based summarization.

Generative Adversarial Network for Abstractive Text Summarization SIAT@CAS

Supervised by Prof. Min Yang, Chinese Academy of Sciences *Mar. 2018 - Sep. 2018*

- We proposed an adversarial process for abstractive text summarization, in which we simultaneously train a generative model G (as an agent of reinforcement learning, which takes the raw text as input and predicts the abstractive summarization) and a discriminative model D which attempts to distinguish the generated summary from the ground truth summary.
- Extensive experiments on the CNN/DailyMail Dataset shows that our model is able to generate more abstractive, readable and diverse summaries.

Cross-dataset Person Re-Identification Using Similarity Preserved Generative Adversarial Networks. Intelligent Information Fusion Lab@SCUT

Supervised by Prof. Jianming Lv, South China University of Technology *Sep. 2017 - Jan. 2018*

- Due to the expensive cost of data labeling, most of the proposed Re-ID algorithms conduct supervised learning on small labeled datasets. Directly deploying these trained models to the real-world large-scale camera networks may lead to a poor performance. We address this cross-dataset Re-ID challenge by transforming the unlabeled images in the target domain to fit the classifier using our proposed similarity preserved generative adversarial networks model.

- Comprehensive experiments based on real datasets indicate that our model is better than the state-of-the-art cross-dataset unsupervised transfer learning algorithm.
- The paper has been accepted by KSEM. Full paper (Acceptance rate of 23%).

A Convolutional Neural Network For Multi-scale Taxi Trajectory Prediction. Intelligent Information Fusion Lab@SCUT

Supervised by Prof. Jianming Lv, South China University of Technology *Sep. 2016 - Sep. 2017*

- We propose TCONV which models trajectories as two-dimensional images, and adopts multi-layer convolutional neural networks to combine multi-scale trajectory patterns to achieve precise prediction. Furthermore, we integrate multiple local enhancement convolutional fields to explore these important areas deeply for better prediction.
- Comprehensive experiments based on real trajectory data show that T-CONV can achieve higher accuracy than the state-of-the-art methods.
- The paper has been accepted by BigComp. Full paper.

Hadoop Based Distributed Mobile Trajectory Retrieval System. New Media Lab@SCUT

Supervised by Prof. Jianming Lv, South China University of Technology *May. 2015 - Sep. 2016*

- We develop a mobile trajectory retrieval system named TREST, which is based on the distributed Hadoop and HBase systems. TREST makes use of the horizontal expansion mechanism of Hadoop to store overwhelming spatio-temporal trajectories, and supports frequent incremental insertion of data stream. Meanwhile, TREST maps the spatio-temporal features of trajectories into the simple key-value schema of HBase to support fast retrieval.
- Experiments on this data set show that TREST can efficiently support both Single-track and All-track retrieval within milliseconds on average.
- The paper has been accepted by DSC. Full paper.

SCHOLARSHIPS / AWARDS

- **South China University of Technology Research Scholarships** 2017, 2018, 2019
- *This scholarship is awarded to the outstanding students in the university.*
- **Hongping And Changqing Scholarships** 2016
- *This scholarship is awarded to the outstanding students with excellent performance in academic competitions.*
- **Tencent Scholarship of the Science and Technology (Rank 1st)** 2016
- *This scholarship is awarded to the outstanding students with excellent academic performance.*
- **Anju Bao Scholarship of the Science and Technology (Rank 1st)** 2016
- *This scholarship is awarded to the outstanding students with excellent academic performance.*
- **South China University of Technology Scholarships** 2015
- *This scholarship is awarded to the outstanding students in the university.*
- **Merit Student of South China University of Technology** 2015
- *This award is awarded to the outstanding students with excellent performance in academic and leadership.*
- **Honorable Mention of Mathematical Contest In Modeling Certificate of Achievement** 2015
- *Awarded by the Consortium for Mathematics and Its Application, USA.*
- **Gold Prize in National COMAP's Computer Software Design Contest.** 2015
- *Awarded by the China Computer Federation, China.*

PROGRAMMING SKILLS

- Computer Language: **Python,** C++, Java
- Develompment Software: **Pycharm, Eclipse, Ipython notebook**
- Database Software: **MySQL, Oracle, HBase, Hive**
- Toolkit for Data Analysis: **Numpy, Pandas, Matplotlib, Seaborn, NLTK, Sklearn**
- Framework for Deep Learning: **Pytorch, Tensorflow, Keras**
- Framework for Distributed Computing: **Hadoop, Spark**
- Editing Software: **Word, Excel, PowerPoint, Latex**