Xuhong WANG

Visiting PhD student

2 May 1995

Shanghai, China

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Interests

Anomaly Detection
Variational Inference
Graph Neural Networks
Graph Embedding
Data Dining
Self-supervised Learning
Encoder-Decoder Networks
Generative Adversarial Networks

Skills

Languages: Python, Matlab, C/C++, SQL, Latex, etc.

Development: Linux, Git, Shell, etc.

Frameworks: PyTorch, Deep Graph Library, PyTorch Geometric, Networkx, Tensorflow, Intel Analytics Zoo, Scikit-Learn, etc.

Strengths

Good understanding for AI papers
Rich experience in model coding
Innovator
Fast Learner
self-motivated

Hobbies

Basketball
Guitar
Flute
Hiking
Cooking

Education

since 2017 — Shanghai Jiao Tong University, Shanghai, China — Ph.D. candidate
Majoring in Automation GPA 3.82/4

Feb. 2017 — Keio University, Tokyo, Japan — Exchange Student
The international Campus

2013 - 2017 — Sichuan University, Sichuan, China — Bachelor
Majoring in Electronic Engineering (EE) average mark 84.5

Experience

Jul. 2019 - — Deep learning software Intern — Intel Asia-Pacific Co., Shanghai, China
Working on optimizing deep learning framework with PyTorch and *Intel Analytics Zoo*. I currently have two projects:
a. I used my adVAE model in unsupervised biopsy image recognition, which even exceeds the performance of supervised Resnet-50.
b. I applied Graph Neural Network (GNN) for discovering the rules of chemical reactivity. Since the number of classes are huge, label smoothing and AM-Softmax techniques is used beyond the plain GNN.

2018.7 - 11 — Project Engineer — China Southern Power Grid Co., Guangdong, China
Working on generalizing anomaly detection technology to the power grid. I built a real time online fault detection system using RPCA algorithm, SQL database and Flask web development framework.

Publications

- *X. Wang** et al. "adVAE: A self-adversarial variational autoencoder with Gaussian anomaly prior knowledge for anomaly detection." Knowledge-based Systems, 2019. (IF=5.3, Available Online)
  "The author has in-depth thinking on this topic and proposes a somewhat interesting method." —– from the reviewer
- *X. Wang** et al. "Partial Discharge Pattern Recognition with Data Augmentation based on Generative Adversarial Networks." Condition Monitoring and Diagnosis. IEEE, 2018.
- J. Huang, *X. Wang**, S. Lin, H. Zhao, Z. Hu. "A Pull-type Braille Screen and its Components Reuse Method." (Patent, No. CN106781881A, July 2017)
- S. Lin, F. Xu, *X. Wang**, W. Yang, L. Yu. "Efficient Spatial-Temporal Normalization of SAE Representation for Event Camera.", IEEE Robotics and Automation Letters. (Revision)
- Y. Du, Y. Liu, *X. Wang**, J. Fang, G. Sheng, X. Jiang. "Predicting Weather-Related Failures in Distribution Systems Using Bayesian Neural Network.", IEEE Transactions on Smart Grid. (Under review)
- *X. Wang** et al. "Deep Hypersphere Learning using Graph Convolutional Networks." (Under preparation)

Honers and Awards

Sept. 2019 — PhD Academic Scholarship of Shanghai Jiao Tong Univ. (TOP 5%)
Oct. 2017 — 1st Prize, Outstanding Scholarship of Sichuan Univ. (TOP 5%)
Oct. 2016 — 2st Prize, Outstanding Scholarship of Sichuan Univ. (TOP 10%)
Oct. 2015 — 2st Prize, Outstanding Scholarship of Sichuan Univ. (TOP 10%)

Sept. 2016 — 2st Prize, China "Internet+" College Students Innovation and Entrepreneurship Competition
Oct. 2015 — 3st Prize, National Undergraduate Electronic Design Competition

May 2019 — Excellent Postgraduate Student of Shanghai Jiao Tong Univ.
May 2018 — Excellent Postgraduate Student of Shanghai Jiao Tong Univ.
Nov. 2015 — Excellent Student Cadre of Sichuan Univ.
July 2015 — Outstanding Academic Student Association Leader of Sichuan Univ.