
JIAN GAO

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SUMMARY

Self-motivated researcher with 9 years' experience in machine learning, computer vision and neural networks.

RESEARCH INTERESTS

- Machine Learning, Game Theory, Robust Optimization
- Data Analysis, Computer Vision, Signal Processing, Voice Conversion

EDUCATION

Ph.D. Computer Science, New York University January 2020

Dissertation: Game-Theoretic Approaches for Generative Modeling. (Advisor: Hamidou Tembine, GPA: 4.0)

M.S. & B.S. Pattern Recognition & Intelligent Systems, Tongji University April 2015

T: An Affine Invariant Approach for Dense Wide-baseline Image Matching. (Advisor: Fanhuai Shi, GPA: 3.8)

RESEARCH EXPERIENCE

PhD program, Learning & Game Theory Laboratory, NYUAD, 2015-2019

- Nonparallel emotional speech conversion, generative model for style transfer
- Deep generative learning, GANs, distributionally robust optimization
- Vehicle tracking, video analysis, object detection, Intelligent Transportation Systems
- Signal processing, filtering and prediction, aircraft tracking (funded by U.S. Air Force)

Master program, Image & Vision Computing Laboratory, Shanghai, 2012-2015

- Plant leaf detection and classification
- Dense wide-baseline matching, stereo matching, camera calibration

WORK EXPERIENCE

Data Analytics Intern, 05/2019 to 08/2019

Hitachi America, Ltd – Santa Clara, CA

- Time-series data prediction (wind power forecasting)
- Renewable energy and demand forecasting

Computer Vision Intern, 05/2018 to 08/2018

Phillips Lighting – Boston, MA

- Google street view object detection and classification
- Speech processing & Emotional voice conversion

PROGRAMMING SKILLS

- Python, Matlab, C/C++, Linux, Git, AWS, SQL
- Tensorflow, Keras, Pandas, Scikit-learn, PyTorch

PUBLICATIONS

- **Jian Gao**, Deep Chakraborty, Hamidou Tembine, and Olaitan Olaleye, "Nonparallel Emotional Speech Conversion," INTERSPEECH 2019, Graz, Austria, September 2019.
- **Jian Gao**, Yida Xu, Julian Barreiro-Gomez, Massa Ndong, Michalis Smyrnakis and Hamidou Tembine (September 5th, 2018) Distributionally Robust Optimization. In Jan Valdmann, Optimization Algorithms, IntechOpen. DOI: 10.5772/intechopen.76686. ISBN: 978-1-78923-677-4
- **Jian Gao** and Hamidou Tembine, Distributionally Robust Games: Wasserstein Metric, International Joint Conference on Neural Networks (IJCNN), Rio de Janeiro, Brazil, July 2018
- **J. Gao** and H. Tembine, "Distributed Mean-Field-Type Filters for Traffic Networks," in IEEE Transactions on Intelligent Transportation Systems, pp. 507-521, Feb. 2019.
doi:10.1109/TITS.2018.2816811
- **Jian Gao** and Olaitan Olaleye. "Automated generation of artistic and photo-realistic synthetic lighting scene images and realizations using generative networks", (ID: 2018ID80933, US Patent submitted)
- **Jian Gao**, Panitarn Chongfuangprinya, Yanzhu Ye, Bo Yang, "A Three-Layer Hybrid Model for Wind Power Prediction", IEEE PES GENERAL MEETING, Montreal, Canada, August 2020
- **Jian Gao** and Hamidou Tembine, Distributionally Robust Games for Deep Generative Learning, July 2018. DOI: 10.13140/RG.2.2.15305.44644
- **Jian Gao** and Hamidou Tembine, Bregman Learning for Generative Adversarial Networks, Chinese Control and Decision Conference (CCDC), Shenyang, China, June 2018 (Best paper finalist Award)
- Dario Bauso, **Jian Gao** and Hamidou Tembine, Distributionally Robust Games: f-Divergence and Learning, 11th EAI International Conference on Performance Evaluation Methodologies and Tools (VALUETOOLS), Venice, Italy, Dec 2017
- **Jian Gao** and Hamidou Tembine, Empathy and Berge equilibria in the Forwarding Dilemma in Relay-Enabled Networks, International Conference on Wireless Networks and Mobile Communications (WINCOM), Rabat, Morocco, Nov 2017 (Best paper Award)
- **Jian Gao** and Hamidou Tembine, Correlative Mean-Field Filter for Sequential and Spatial Data Processing, in the Proceedings of IEEE International Conference on Computer as a Tool (EUROCON), Ohrid, Macedonia, July 2017
- **Jian Gao** and Hamidou Tembine, Distributed Mean-Field-Type Filter for Vehicle Tracking, in American Control Conference (ACC), Seattle, USA, May 2017