HUANGJIE ZHENG

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RESEARCH INTERESTS

General Interests: Machine Learning and Deep Generative Model with application to Computer Vision, Multimedia Information Retrieval.

- Representation learning with deep generative model like Probabilistic Graphical Model, Variational Autoencoder, *etc.*

- Application with learned feature representations from deep generative model.

- Machine learning based medical imaging research

EDUCATION

Shanghai Jiao Tong University (SJTU)   March 2017 - March 2019(expected)
Master Student in Information Engineering (Sino-French Cooperative Education Program).
GPA: 3.87/4.0

Telecom ParisTech ENST   September 2016 - March 2017
Grande Ecole Engineer Cycle in Data Science and Computer Networking.
Average Course Grade: A

Shanghai Jiao Tong University (SJTU)   September 2012 - August 2016
B.S. in Information Engineering (Sino-French Cooperative Education Program).
GPA: 3.66/4.3

PUBLICATIONS

[1] **H. Zheng**, J. Yao, and Y. Zhang. Describing Geographical Characteristics with Social Images. MultiMedia Modeling. Springer International Publishing, 2017. (Oral Presentation)

URL https://link.springer.com/chapter/10.1007/978-3-319-51811-4_10

RESEARCH EXPERIENCE

Cooperative Medianet Innovation Center   Present
Research assistant of Prof. Ya Zhang

· Research on Deep Bayesian Learning. Specifically, on deep learning's impact in generative model such as Variational AutoEncoder (VAE) and its corresponding applications in perspective of information theory.

Two recent researches are submitted to NIPS 2018 (anonymous)
and to ACML 2018: **URL** https://arxiv.org/abs/1802.06677v1

Telecom ParisTech INFRES/IC2 group.   September 2016 - March 2017
Research assistant of Prof. Talel Abdessalem, cooperating with Prof. Ya Zhang

· Research on Deep Bayesian Learning, with application to deep matrix factorization.

Cooperative Medianet Innovation Center   July 2015 - August 2016
Research assistant of Prof. Ya Zhang

· Research on two-stage combination of generative model and deep learning. Using learned representation in mining descriptive characteristics of a region from social images.

Published in MMM 2017:

URL https://link.springer.com/chapter/10.1007/978-3-319-51811-4_10

SELECTED PROJECTS

Machine Learning based Ontology for cyber security. Fall 2017
Project in course "Big Data and Security", supervised by Prof. Ruan He and Prof. Jialiang Lu.

An automatic method for ontology representation learning, which benefits automatic cyber attack detection. (Accepted in IEEE TrustCom 2018)

Intelligent Vehicle Control. Fall 2017
Best history score in all contests of course "Intelligent Vehicle", lectured by Prof. Ming Yang.
- Lane detection and traffic sign recognition using deep learning method.
- Vehicle control algorithm design on cyber-torcs platform.

Data Mining contest. Spring 2017
Winner in contest of course "Data Mining", lectured by Prof. Michalis Vazirgiannis.
- Predicting missing links in a citation network. **URL** http://moodle.lix.polytechnique.fr/link_prediction/

Group theory research March 2015 - June 2015
An algorithm proposed to compute the cardinal of a finite group based on Schrier Lemma and its relevant applications, supervised by Prof. Alain Chilles.
- Experiments on WxMaxima and C++.
- An extension library for WxMaxiama.

SELECTED HONORS AND AWARDS

National scholarship for graduate students	2017
Excellent teaching assistant	2017
Outstanding graduates of Shanghai(Top 5% of graduates in Shanghai)	2016
Excellent undergraduate thesis of Shanghai Jiao Tong University (Top 1%)	2016
Meritorious Winner in MCM(Mathematical Contest in Modeling)	2015
Third Price in MCM of China	2014
Academic Scholarship (Second-class) of SJTU	2015
Academic Scholarship (Third-class) of SJTU	2014
Undergraduate-Entrance Bursary (Top 1% in Chinese University Entrance exam)	2012

SKILLS

Computer Languages	C/C++, Python, Html, Javascript
Tools/Software	Pytorch, Latex, MATLAB, R, Microsoft Office

LANGUAGES

Chinese	Native Language
English	Tofel 97 ; GRE Verbal 151, QR 166 (writing 3.5)
French	DELF B2 certificate

SELECTED EXTRA-CIRRUCULAR ACTIVITIES

Teaching Assistant of Data Structure	Spring 2018
Teaching Assistant of C programming language	Fall 2017
Teaching Assistant of Data Structure	Spring 2017
Cognitive Internship of 4G program in China Mobile	Spring 2014
Chief officer, Youth League committee in SJTU-ParisTech, SJTU	2014-2015
Mermber of SJTU-ParisTech Instiude Basketball team	2013-Present