

DANYANG LIU

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EDUCATION BACKGROUND

Shanghai Jiao Tong University <i>Master of Science in Cyber Science & Engineering GPA: 3.80/4.0</i>	Shanghai, China <i>Sept. 2017 - Mar. 2020</i>
Peking University <i>Exchange student majored in natural language generation</i>	Peking, China <i>June. 2019 - Sept. 2019</i>
Southeast University <i>Bachelor of Engineering in Information Engineering GPA: 85.52/100</i>	Nanjing, China <i>Aug. 2013 - June 2017</i>

PROJECTS

Variational Autoencoder for Text Generation Oct. 2018 - Present

- Implemented a transformer-based variational autoencoder for natural text generation and published a paper “A Transformer-Based Variational Autoencoder for Sentence Generation” in 2019 International Joint Conference on Neural Networks (IJCNN 2019).
- Designed a hierarchy architecture for natural language paragraph generation, using conditional variational autoencoder to control the theme of generated text. (in progress)

Neural Model for Automated Story Generation June. 2019 - Sept. 2019

- Designed a novel method to learn the distributed character representation by predicting the action to be performed from corpus.
- Implemented a character-centric neural model for automated storytelling and submitted a paper “A Character-Centric Neural Model for Automated Story Generation” to AAAI 2020.

Babel Tower Multilingual Translation System Dec. 2017 - Sept. 2018

- Implemented a script to clean the corpus, including tokenization, truecasing and length constraint.
- Designed a style-classification module before translation, which divided the dataset into many subsets and then train sub-models for each set, improving by about 1 BLEU.
- Explored transformer networks as the basic translation architecture.
- For low-resource language pairs, we did some research about semi/unsupervised translation, such like back-translation method.

An Evolving Social Network Model Based on Interest Vectors Jun. 2017 - Dec. 2017

- Proposed an evolving network model where the formation of communities was driven by each nodes various preference of interest fields, denoted as interest vectors, whose mechanism is far different from other models with community structure.
- Implemented an extensible framework for generating evolving graphs.
- Published a paper “Benchmark snapshots for testing social network evolving algorithms” in 2018 International Conference on Identification, Information and Knowledge in the IoT (IIKI 2018).

Identify Android Applications Using Launch Time Traffic Dec. 2016 - Jun. 2017

- Built an Android applications classifier using only the lengths of launch time HTTP traffic, solving the problem of encrypted network traffic. Designed a novel directional cluster of length as the feature. Multiple supervised machine learning algorithms were used to train the classifier, achieving a more than 90% accuracy over 50 popular applications.
- Won the price for the excellent graduation project(5%).

AWARDS

Huawei Scholarship. 2018

First-Class Postgraduate Academic Scholarship. 2017-2020

Meritorious Winner of The Interdisciplinary Contest in Modeling. 2017

Excellent Graduation Project (5%) of Southeast University. 2017

Gold award of "Challenge Cup" National College Student Business Plan Competition. 2016

TECHNICAL STRENGTHS

Computer Languages	Python, Matlab, C++
Frameworks	Pytorch, Sklearn, LaTeX

PUBLICATIONS

Danyang Liu and Gongshen Liu (2019) A Transformer-Based Variational Auto Encoder for Sentence Generation, In Proceedings of the International Joint Conference on Neural Networks (IJCNN), Budapest, Hungary.

Linqing Shi, **Danyang Liu**, Gongshen Liu and Kui Meng (2019) AUG-BERT: An Efficient Data Augmentation Algorithm for Text Classification, In Proceedings of the 8th International Conference on Communications, Signal Processing, and Systems (CSPS), Urumqi, China.

Danyang Liu, Gongshen Liu and Kui Meng (2018) Benchmark Snapshots for Testing Social Network Evolving Algorithms, In Proceedings of the 26th International Conference on Identification, Information and Knowledge in the Internet of Things (IIKI), Peking, China.

UNDER REVIEW

Danyang Liu, Juntao Li, Meng-Hsuan Yu and Rui Yan (2019) A Character-Centric Neural Model for Automated Story Generation, submitted to AAAI 2020.

Meng-Hsuan Yu, Juntao Li, **Danyang Liu**, Rui Yan (2019) Draft and Edit: Automatic Storytelling Through Multi-Pass Hierarchical Conditional Variational Autoencoder, submitted to AAAI 2020.

TEACHING AND SUPERVISION

Undergraduate Thesis Co-Supervision	2018.10 - 2019.06
<i>Shuai Wang, Machine Translation Based on Sentence Classification And Multi-Neural-Models</i>	

Teaching Assistant	2019.01 - 2019.06
<i>Information security experimental lessons.</i>	

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