

DANYANG LIU

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EDUCATION

University of Edinburgh

Edinburgh, U.K.

PhD at the UKRI Centre for Doctoral Training in NLP

Sep. 2020 - Aug. 2024 (expected)

- Research Topic: Character-centric Controllable Visual Storytelling
- Advisors: Frank Keller and Mirella Lapata

Shanghai Jiao Tong University (SJTU)

Shanghai, China

Master of Science in Cyber Science & Engineering, GPA: 3.8/4.0

Sep. 2017 - Mar. 2020

Southeast University

Nanjing, China

Bachelor of Engineering in Information Engineering, GPA: 85.52/100

Aug. 2013 - Jun. 2017

INTERNSHIPS

Huawei Edinburgh Research Centre, Edinburgh, U.K.

May. 2021 - Oct. 2021

Research Intern

Research on jointly learning conversational semantic parsing and answerability detection.

Peking University, Peking, China

Jun. 2019 - Sep. 2019

Research Intern

Proposed a novel storytelling model by modeling the interaction between characters and environments.

PUBLICATIONS

- [1] Danyang Liu, Frank Keller (2022) Detecting and Grounding Important Characters in Visual Stories, In Proceedings of the Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI 2023), Washington, DC, USA. (Oral)
- [2] Amr Keleg*, Matthias Lindemann*, Danyang Liu*, Wanqiu Long*, Bonnie L Webber (2022) Automatically Discarding Straplines to Improve Data Quality for Abstractive News Summarization, In Proceedings of The First Workshop on Efficient Benchmarking in NLP (ACL 2022), Dublin, Ireland.
- [3] Danyang Liu, Juntao Li, Meng-Hsuan Yu, Gongshen Liu, Rui Yan (2019) A Character-Centric Neural Model for Automated Story Generation, In Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2020), New York, USA.
- [4] Meng-Hsuan Yu, Juntao Li, Danyang Liu, Rui Yan (2019) Draft and Edit: Automatic Storytelling Through Multi-Pass Hierarchical Conditional Variational Autoencoder, In Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2020), New York, USA.
- [5] 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 2019), Budapest, Hungary. (Oral)

- [6] 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 2019), Urumqi, China.
- [7] **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 2018), Peking, China.

SELECTED PROJECTS

Using Question-Answer Based Blueprints for Controllable Visual Storytelling In Progress

- Using a novel QA-based blueprint as an intermediate planning strategy for visual storytelling.

Detecting and Grounding Important Characters in Visual Stories Sep. 2021 - Jun. 2022

- Introduced the VIST-Character dataset, providing rich character-centric annotations, including visual and textual co-reference chains and importance ratings for characters.
- Proposed two new tasks: important character detection and character grounding in visual stories.
- Developed simple, unsupervised models based on distributional similarity and pre-trained vision-and-language models for both tasks.
- Published a paper “Detecting and Grounding Important Characters in Visual Stories” in AAAI 2023.

Neural Model for Character-centric Story Generation Jun. 2019 - Sep. 2019

- Proposed to learn the character representation by predicting the action to be performed from corpus, and decomposed the story generation into two stages: action prediction and sentence generation.
- Created a character-centric neural model for automated storytelling and published a paper titled “A Character-Centric Neural Model for Automated Story Generation” in AAAI 2020.

AWARDS

School of Informatics CDT NLP PhD Scholarship <i>4-year scholarship from the University of Edinburgh</i>	2020 - 2024
First-Class Postgraduate Academic Scholarship <i>3-year scholarship from Shanghai Jiao Tong University</i>	2017 - 2020
Outstanding Graduate of Shanghai Jiao Tong University	2020
Meritorious Winner of The Interdisciplinary Contest in Modeling	2017
Excellent Graduation Project (5%) of Southeast University	2017

TEACHING EXPERIENCE

Teaching Support at the School of Informatics, University of Edinburgh 2020 - Present

- Tutor and Marker for *Natural Language Understanding and Generation* for AI MSc students.
- Tutor and Marker for *Informatics Research Review* for AI MSc students.

Teaching Assistant at Shanghai Jiao Tong University 2018 - 2019

- Demonstrator for *Information Security Experiment* for MSc students.
- Assisting MSc student for *Masters Project on Machine Translation*.