

DANYANG LIU

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RESEARCH INTERESTS

General: Transforming temporal visual inputs, such as image sequences or videos, into text.

PhD Focus: Controllable and grounded visual storytelling, emphasizing planning and characters.

EDUCATION

University of Edinburgh, *Ph.D. in Natural Language Processing* Sep. 2020 - Present

Advisors: Frank Keller and Mirella Lapata

Shanghai Jiao Tong University, *M.Sc. in Information Security* Sep. 2017 - Mar. 2020

Southeast University, *B.Eng. in Information Engineering* Aug. 2013 - Jun. 2017

PUBLICATIONS

- [1] **Danyang Liu**, Fanjie Kong, Xiaohang Sun, Dhruva Patil, Avijit Vajpayee, Zhu Liu, Vimal Bhat, Najmeh Sadoughi. [Detect, Disambiguate, and Translate: On-Demand Visual Reasoning for Multimodal Machine Translation with Large Vision-Language Models](#), **Under Review**.
- [2] **Danyang Liu**, Mirella Lapata, Frank Keller. [Generating Visual Stories with Grounded and Coreferent Characters](#), **Under Review**.
- [3] Danna Zheng, **Danyang Liu**, Mirella Lapata, Jeff Z. Pan. [TrustScore: Reference-Free Evaluation of LLM Response Trustworthiness](#), Workshop on Secure and Trustworthy Large Language Models, (SeT-LLM @ ICLR), 2024, Vienna, Austria.
- [4] **Danyang Liu**, Mirella Lapata, Frank Keller. [Visual Storytelling with Question-Answer Plans](#), In Findings of the Conference on Empirical Methods in Natural Language Processing (**EMNLP Findings**) 2023, Singapore.
- [5] **Danyang Liu**, Frank Keller. [Detecting and Grounding Important Characters in Visual Stories](#), In Proceedings of the AAAI Conference on Artificial Intelligence (**AAAI**) 2023, Washington, DC.
- [6] Amr Keleg*, Matthias Lindemann*, **Danyang Liu***, Wanqiu Long*, Bonnie L Webber. [Automatically Discarding Straplines to Improve Data Quality for Abstractive News Summarization](#), In Proceedings of NLP Power! The First Workshop on Efficient Benchmarking in NLP (**ACL Workshop**) 2022, Dublin, Ireland.
- [7] **Danyang Liu**, Juntao Li, Meng-Hsuan Yu, Gongshen Liu, Rui Yan. [A Character-Centric Neural Model for Automated Story Generation](#), In Proceedings of AAAI Conference on Artificial Intelligence (**AAAI**) 2020, New York, USA.
- [8] Meng-Hsuan Yu, Juntao Li, **Danyang Liu**, Rui Yan. [Draft and Edit: Automatic Storytelling Through Multi-Pass Hierarchical Conditional Variational Autoencoder](#), In Proceedings of AAAI Conference on Artificial Intelligence (**AAAI**) 2020, New York, USA.
- [9] **Danyang Liu** and Gongshen Liu. [A Transformer-Based Variational Auto Encoder for Sentence Generation](#), In Proceedings of the International Joint Conference on Neural Networks (**IJCNN**) 2019, Budapest, Hungary.

INDUSTRY EXPERIENCE

Amazon Prime Video, Seattle, U.S.

Jul. 2024 - Oct. 2024

Research Intern

- Research on Using Large Vision-Language Model for Multimodal Machine Translation.

Huawei Edinburgh Research Centre, Edinburgh, U.K.

May. 2021 - Oct. 2021

Research Intern

- Research on Jointly Learning Conversational Semantic Parsing and Answerability Detection.

TEACHING EXPERIENCE

Teaching Support at the School of Informatics, University of Edinburgh

2020 - Present

- Tutor for *Natural Language Understanding and Generation* for AI MSc students.
- Tutor for *Informatics Research Review* for AI MSc students.
- Marker for *Machine Learning Practical* for AI MSc students.
- Marker for *Doing Research in NLP* for CDT Ph.D. 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*.

AWARDS

School of Informatics CDT NLP PhD Scholarship

2020 - 2024

4-year scholarship from the University of Edinburgh

First-Class Postgraduate Academic Scholarship

2017 - 2020

3-year scholarship from Shanghai Jiao Tong University

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