

FUXIAO LIU

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EDUCATION

University of Virginia *2019.8-2021.5*
M.S. in Computer Science
Overall GPA: (3.75/4.0)
Beijing University of Posts and Telecommunications/
Queen Mary University of London(Joint Bachelor Programme) *2015.8-2019.6*
Double B.S. in Telecommunications Engineering with Management
Overall GPA: (3.80/4.0)

PUBLICATION AND MANUSCRIPTS

- [1] **Fuxiao Liu**, Yinghan Wang, Tianlu Wang, Vicente Ordonez. "VisualNews: Benchmark and Challenges in Entity-aware Image Captioning". *Under Review, 2020*
[2] **Fuxiao Liu**, Ming Wu. "The Research of Semantic Segmentation with Light Neural Networks". *Bachelor Thesis, 2019*

AWARDS AND ACHIEVEMENTS

2019-2020 Academic Excellence Fellowship (UVA)
2019 First Class Outstanding Graduate (BUPT)
2018 Meritorious Winner in MCM/ICM Interdisciplinary Contest in Modeling
2016-2018 Second-class Scholarship (BUPT)

RESEARCH EXPERIENCES

Entity Aware News Image Caption

University of Virginia, Charlottesville, VA, USA *2020.3-present*
Vision, Language, and Learning lab
Research Assistant, Advisor: Professor Vicente Ordonez

- Introduced VisualNews, the largest and most diverse news image captioning dataset.
- Proposed an Entity-Aware LSTM Captioner for news captions, increasing CIDEr by 10+ points with fewer parameters than competing methods.
- Designed a Pointer Transformer Network, further improving the generation of named entities.

Evaluation of Explainable Recommendation

University of Virginia, Charlottesville, VA, USA *2020.9-present*
Human-Centric Data Mining Group
Research Assistant, Advisor: Professor Hongning Wang

- Extracted high quality feature nouns from reviews in Yelp and Amazon datasets.
- Experiments with both personalized and non-personalized explainable recommendation models.
- Discovered that non-personalized methods can perform better than personalized methods in terms of existing evaluation metrics.

Deep Learning Network Embedding with Regular Equivalence

University of Virginia, Charlottesville, VA, USA *2019.9-2019.11*
Research Assistant, Advisor: Professor Jundong Li

- Designed an Auto-Encoder based on the attention mechanism and LSTM to learn role information from the multi-hop neighborhoods.

- Experimented on American Air Traffic Network dataset, increased the accuracy by 0.03 compared to the baseline algorithms.

Semantic Segmentation with Light Neural Networks

Beijing University of Posts and Telecommunications, Beijing, China

2018.3-2019.4

Key Laboratory of Pattern Recognition and Intelligence System

Research Assistant, Advisor: Professor Ming Wu

- Discovered the importance of the lightweight models for mobile devices.
- Experiments with different lightweight modules with CRF in the Encoder-Decoder model on two Remote Sensing datasets.
- Developed a novel cost-efficient Fully Convolutional Network, which achieved better accuracy with much smaller model size (17.2M) than baseline models (100+M).

TECHNICAL STRENGTHS

Programming Languages

Proficient in Python, Java

Research Skills

Familiar with state-of-the-art machine learning and deep learning, Tensorflow, PyTorch