# Xinyu Hua

# **Experience**

#### Bloomberg AI, Senior Research Scientist

2021 - Present

• We work on active learning and transfer learning for efficient sentiment analysis in various specialized domains.

#### IBM Research AI, Research Intern

Summer 2019

- Mentor: Avirup Sil, Radu Florian
- We developed a rewriting framework that converts questions of diverse forms into hypothesispremise pairs for data augmentation. Through transfer learning we significantly improved the accuracy of Boolean questions. (The 2<sup>nd</sup> best model on SuperGLEU leaderboard.)

#### **Education**

#### Northeastern University, Ph.D. in Computer Science

2016 - 2021

Research area: Argument Mining, Text Generation

Advisor: Lu Wang

#### Shanghai Jiao Tong University, B.Eng. in Computer Science

2012 - 2016

Advisor: Kenny Q. Zhu

## **Publications**

1. Towards Controllable Neural Generation of Arguments

2021

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PhD Dissertation.

2. DYPLOC: Dynamic Planning of Content Using Mixed Language Models for Opinion Text Generation

2021

Xinyu Hua, Ashwin Sreevatsa, and Lu Wang.

In *Proc. of ACL*, **2021**.

3. PAIR: Planning and Iterative Refinement in Pre-trained Transformers for Long Text Generation. 2020 Xinyu Hua and Lu Wang. In *Proc. of EMNLP*, 2020.

4. XREF: Entity Linking for Chinese News Comments with Supplementary Article Reference. 2020 Xinyu Hua, Lei Li, Lifeng Hua, and Lu Wang. In *Proc. of AKBC*, 2020.

Sentence-Level Content Planning and Style Specification for Neural Text Generation.
 Xinyu Hua and Lu Wang.
 In Proc. of EMNLP, 2019.

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6.	Argument Generation with Retrieval, Planning, and Realization.  Xinyu Hua, Zhe Hu, and Lu Wang.  In <i>Proc. of ACL</i> , 2019.	2019
7.	Argument Mining for Understanding Peer Reviews.  Xinyu Hua, Mitko Nikolov, Nikhil Badugu, and Lu Wang. In <i>Proc. of NAACL</i> , 2019. (Short)	2019
8.	Neural Argument Generation Augmented with Externally Retrieved Evidence. <b>Xinyu Hua</b> and Lu Wang. In <i>Proc. of ACL</i> , <b>2018</b> .	2018
9.	Understanding and Detecting Supporting Arguments of Diverse Types. <b>Xinyu Hua</b> and Lu Wang. In <i>Proc. of ACL</i> , <b>2017</b> . (Short, <b>Outstanding Paper</b> )	2017
10.	A Pilot Study of Domain Adaptation Effect for Neural Abstractive Summarization. <b>Xinyu Hua</b> and Lu Wang. In <i>Proc. of EMNLP</i> , <b>2017</b> . (The Workshop on New Frontiers in Summarization)	2017

## **Services**

Reviewer: EMNLP 2019-2021, ACL 2020-2022, NAACL 2019, 2021, CoNLL 2019-2020, AAAI 2018

## **Awards and Certificate**

ACL Outstanding Paper Award	2017
Japanese Language Proficiency Test (JLPT) - N1	2016
Academic Excellence Scholarship, Shanghai Jiao Tong University	2013-2014
RoboCup Robot Competition China Open, 1st prize	2013, 2014

#### **Software**

DYPLOC: dynamic planing of content with mixed language model.

PAIR: a plan-and-refine text generation framework.

CANDELA: a neural argument generation model that separates text planning and surface realization.

SUPERGLEU-MTL: a multi-task learning framework for NLI related tasks on SuperGLEU benchmark.

Neural ArgGen: a neural argument generation model with retrieved supporting arguments.

# **Talks and Posters**

Poster: QASP Workshop at MIT-IBM	2019
Guest lecture: CS 7180 Special Topics in AI: Deep Learning (2019), Northeastern University	2019
Poster: Amazon Research Day Boston	2018