Xinya Du

Postdoctoral Research Associate of Computer Science, UIUC Webpage: https://xinyadu.github.io Email: xinyadu2@illinois.edu

Research Areas Natural Language Processing, Machine Learning

Education Cornell University, Ithaca, NY, USA

Ph.D. in Computer Science, Advisor: Prof. Claire Cardie 2016 – 2021

Cornell University, Ithaca, NY, USA

M.S. in Computer Science, Advisor: Prof. Claire Cardie 2016 – 2019

Shanghai Jiao Tong University, Shanghai, China

B.E. in Computer Science and Engineering, GPA Rank: Top 1% 2012 – 2016

Professional Experience

University of Illinois at Urbana-Champaign, Department of CS

Postdoctoral Research Associate Sep 2021 – Present

Supervisor: Heng Ji

Cornell University, Department of CS

PhD Research Assistant Aug 2016 – Aug 2021

Supervisor: Claire Cardie

Google AI Research Intern May 2020 – Aug 2020

Topic: QA-Driven Zero-shot Slot Filling with Weak Supervision Pretraining

Supervisors: Qi Li, Luheng He

Allen Institute for Artificial Intelligence Research Intern

Sep 2018 – Dec 2018

Topic: Improving Procedural Paragraph Understanding by Leveraging Consistency Contraints

Supervisors: Bhavana Dalvi, Peter Clark

Microsoft Research Redmond Research Intern

May 2018 – Aug 2018

Topic: Leveraging web-structured knowledge for question answering.

Supervisors: Paul Bennett, Ahmed Hassan Awadallah

Cornell University, Undergrad Research Intern

Aug 2015 - Dec 2015

Topic: Researched on deep learning techniques for fine-grained opinion extraction.

Supervisor: Claire Cardie

Publications Template Filling with Generative Transformers

Xinya Du, Alexander M. Rush, and Claire Cardie

Proceedings of NAACL, 2021

GRIT: Generative Role-filler Transformers for Document-level Event Entity Extraction

Xinya Du, Alexander M. Rush, and Claire Cardie

Proceedings of EACL, 2021

Few-shot Intent Classification and Slot Filling with Retrieved Examples

Dian Yu, Luheng He, Yuan Zhang, Xinya Du, Panupong Pasupat and Qi Li

Proceedings of NAACL, 2021

QA-Driven Zero-shot Slot Filling with Weak Supervision Pretraining

Xinya Du, Luheng He, Qi Li, Dian Yu, Panupong Pasupat and Yuan Zhang *Proceedings of ACL*, 2021

Event Extraction by Answering (Almost) Natural Questions

Xinya Du and Claire Cardie *Proceedings of EMNLP, 2020*

Improving Event Duration Prediction via Time-aware Pre-training

Zonglin Yang, **Xinya Du**, Alexander M. Rush and Claire Cardie *Proceedings of Findings of EMNLP*, 2020

Document-Level Event Role Filler Extraction using Multi-Granularity Contextualized Encoding

Xinya Du and Claire Cardie *Proceedings of ACL*, 2020

Leveraging Structured Metadata for Improving Question Answering on the Web

Xinya Du, Ahmed Hassan Awadallah, Adam Fourney, Robert Sim, Paul Bennett and Claire Cardie *Proceedings of AACL*, 2020

Be Consistent! Improving Procedural Text Comprehension using Label Consistency

Xinya Du, Bhavana Dalvi, Niket Tandon, Antoine Bosselut, Wen-tau Yih, Peter Clark, Claire Cardie

Proceedings of 17th North American Chapter of the Association for Computational Linguistics (NAACL), 2019

Harvesting Paragraph-Level Question-Answer Pairs from Wikipedia

Xinya Du and Claire Cardie

Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (ACL), 2018

Identifying Where to Focus in Reading Comprehension for Neural Question Generation

Xinya Du and Claire Cardie

Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP), 2017

Learning to Ask: Neural Question Generation for Reading Comprehension

Xinya Du, Junru Shao and Claire Cardie

Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (ACL), 2017

- Featured in New Scientist [Link], TechRepublic
- The first paper to propose end-to-end learning for natural question generation, inspiring work in QA (Alberti 2019), Summarization (Wang 2020), and Dialogue Systems (Laban 2020).

Cornell Belief and Sentiment System at TAC 2016

Vlad Niculae, Kai Sun, Xilun Chen, Yao Cheng, **Xinya Du**, Esin Durmus, Arzoo Katiyar, Claire Cardie

Text Analysis Conference (TAC), 2016

Awards & Scholarships

CDAC Spotlight Rising Star	2020
Outstanding Graduate of Shanghai Jiao Tong University	2016
National Scholarship (Highest honor for undergraduates in China, awarded to top 1% students.)	2013
National Olympiad in Mathematics in Provinces 2011, The First Prize.	2011
National Olympiad in Informatics in Provinces 2010, The First Prize.	2010

Media Coverage New Scientist

"Inquisitive bot asks questions to test your understanding" [Link]

TechRepublic

"How researchers trained one AI system to start asking its own questions" [Link]

Mentoring Zonglin Yang, Cornell CS MEng student \rightarrow NTU PhD,

Spring 2020 – Present

with publication in Findings of EMNLP 2020

Barry Wang, Cornell CS undergraduate student,

Summer 2021 – Present

Automatic Error Analysis for Information Extraction (work presented in SciNLP 2021)

Aliva Das, Cornell CS undergraduate student,

Summer 2021 – Present

Automatic Error Analysis for Information Extraction (work presented in SciNLP 2021)

Maitreyi Chatterjee, Cornell CS undergraduate student

Spring 2021

Rishi Malhotra, Cornell CS undergraduate student

Spring 2021

Teaching

Natural Language Processing (TA for Prof. Claire Cardie), Fall 19.

Natural Language Processing (TA for Prof. Yoav Artzi), Spring 19.

Software Engineering (TA for Prof. William Arms), Spring 17, Spring 18.

Introduction to Computing Using Python (TA for Prof. Walker White), Fall 16.

Talks

Towards More Informed Extraction of Events from Documents

Rising Stars in Data Science Workshop at University of Chicago, Jan 2021

Tencent AI Research, Nov 2020

Event Extraction by Answering (Almost) Natural Questions

EMNLP 2020 (Online), Nov 2020

UIUC Class Information Extraction and Knowledge Acquisition (Online), Sep 2020

LwLL: Progress on the NLP Front

DARPA site visit, Cornell University (Online), Apr 2020

Harvesting Paragraph-Level Question-Answer Pairs from Wikipedia

ACL 2018, Jul 2018

Services

Program Committee Member:

Year 2018: ACL, CoNLL, MRQA, W-NUT;

Year 2019: NAACL, ACL, EMNLP, CoNLL, *SEM, W-NUT, IJCAI, AAAI;

Year 2020: ACL, IJCAI, EMNLP, AACL

Year 2021: EMNLP, ACL ARR

Journal Reviewer:

IEEE Transactions on Knowledge and Data Engineering (TKDE)

IEEE Transactions on Audio, Speech and Language Processing (TASLP)

AI Communications

Volunteer:

ACL 2017, 2018; EMNLP 2017;

Cornell CS PhD Visit Day 2019, 2020, 2021;

Cornell CS PhD Admission Committee 2021.

Code Release

NQG [Link]

Open source repository for neural question generation from sentences (ACL 2017). Including evaluation scripts and implementations for the models.

EEQA [Link]

Open source repository for using QA techniques for extracting events from text (EMNLP 2020). Including different question templates and implementations for the models.

GRIT: Document Event Entity Extractor [Link]

Open source repository for document-level entity extraction (EACL 2021). Including implementations for our model, evaluation scripts for document-level extraction, and analysis for predictions.

References Claire Cardie

Professor, Department of Computer Science and Department of Information Science Cornell University cardie@cs.cornell.edu

Heng Ji

Professor, Department of Computer Science University of Illinois at Urbana-Champaign hengji@illinois.edu

Alexander M. Rush

Associate Professor, Department of Computer Science Cornell University arush@cornell.edu

Peter Clark

Senior Research Manager Allen Institute for Artificial Intelligence (AI2) peterc@allenai.org

Ahmed Hassan Awadallah

Principal Research Manager, Language and Information Technologies Team Microsoft Research AI hassanam@microsoft.com

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