XIAO LIU

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EDUCATION

Beijing Institute of Technology, Beijing, China

- Ph.D. in Computer Science supervised by Prof. Heyan Huang — Sep 2017 –
- M.S. in Computer Science supervised by Prof. Heyan Huang (5/192) — Sep 2016 – Jun 2017
- B.S. in Computer Science (4/220) — Sep 2012 – Jun 2016

Singapore University of Technology and Design, Singapore

- Joint Ph.D. in ISTD under Prof. Yue Zhang — Aug 2018 – Mar 2019

Nanyang Technological University, Singapore

- Joint Ph.D. in SCSE under Prof. Erik Cambria and Prof. Yue Zhang — Mar 2019 – Sep 2019

RESEARCH INTERESTS

Event Extraction on new domain, including automatically inducting meaningful event types and their schema according to the domain.

PUBLICATION

[1] **Xiao Liu**, Heyan Huang, Yue Zhang. "Open Domain Event Extraction Using Neural Latent Variable Models". In *ACL* 2019.

[2] Changsen Yuan, Heyan Huang, Chong Feng, **Xiao Liu**, Xiaochi Wei. "Distant Supervision for Relation Extraction with Linear Attenuation Simulation and Non-IID Relevance Embedding". In *AAAI* 2019.

[3] **Xiao Liu**, Zhunchen Luo, Heyan Huang. "Jointly Multiple Events Extraction via Attention-based Graph Information Aggregation". In *EMNLP* 2018.

[4] Zhunchen Luo, **Xiao Liu**. "Real-time Scholarly Retweeting Prediction System". In *COLING* 2018.

RESEARCH EXPERIENCE

Reviewer

- ACL 2020

Secondary Reviewer

- ACL 2019, EMNLP 2018, ACL 2018, COLING 2018, CCL 2017, NLPCC 2016

Microsoft Research Asia, Beijing, China

- Research Intern, Data Mining and Enterprise Intelligence Group — Dec 2016 – Nov 2017
  - Supervisors: Dr Jun Yan and Yaobo Liang
  - Participated in FAQ Retrieval project for Pfizer that needs to provide every input question with an answer by retrieving similar standard questions with well-written answers.
  - Built a fast module with high recall to filter top-n similar question-question pairs.
  - Built a CNN text classifier to classify the question intents for boosting question matching.
  - Did experiments on how neural structures and external traditional features (NER, POS-tagging, concept graph and knowledge base) effect the performance of our paraphrase identification model.
  - Built a deep learning paraphrase generation model based on replacing synonyms decided by language model and beam search.
  - Built a deep learning paraphrase generation model based on a NMT seq2seq framework.

Netease Youdao, Beijing, China

- Research and Development Intern, Machine Translation Group — Nov 2015 – Dec 2016
  - Mainly improved Japanese to Chinese MT results by 4% point increment in BLEU.
  - Optimized word segmentation and ordering, enlarged bilingual and monolingual corpus, trained larger language models, and deployed them into online production environment.

- Designed the framework, and built the first version of parallel sentence pairs crawler with switchable alignment methods on Spark.

Research on Laboratory Projects

- Research Member   Jun 2016 – Oct 2016
  - Researched on real-time scientific impact prediction in Twitter. The prediction problem is transferred to whether the paper implied in the tweet will increase its primary author's h-index after five years. The prediction is not based on data that needs time to accumulate, such as Web of Science citation network, but based on social networks of scholars in Twitter, and is real-time.

- Research Member   Dec 2015 – Apr 2016
  - Participated in Entity Normalization Project, researched on specified typed NER (scientific term, contract, program, weapon, organization, and person). I trained a CRF model with self-designed features, and F1 value is 80% by adopting 5-fold cross-validation. And after then I also use Bi-LSTM model with CRF layer to train a model whose F1 is 83%.

AWARDS & SCHOLARSHIPS

- China Scholarship Council No. 201806030142 in SUTD & NTU   2018 – 2019
- Gold Medal in the 2nd China Collegiate Programming Contest Hefei Onsite   Oct 2016
- Beijing Outstanding Graduates   Jun 2016
- Outstanding Students Award, BIT   2012 – 2017
  Five times. For rewarding excellent students in BIT by inspecting the whole academic year.
- Bronze Medal in the 39th ACM/ICPC Regional Beijing Onsite   Oct 2014
- Bronze Medal in the 39th ACM/ICPC Regional Shanghai Onsite   Dec 2014
- China Century Group Scholarship, BIT   2014
  Sponsor and award 4 undergraduate students and 2 master students every year by China Century Group
- First-class Ph.D. Academic Scholarship, BIT   2017
  As for first year Ph.D. student, select top 10 by master-period school and GPA.
- First-class M.S. Academic Scholarship, BIT   2016
  As for first year master student, select top 30 by bachelor-period school and GPA.
- First-class Undergraduate Academic Scholarship, BIT   2013 – 2016
  Four times. As for undergraduate student, select top 5% by last semester's GPA.

CAMPUS ACTIVITIES

Student Union, Computer Science Department, BIT

- Office Director   Oct 2014 – Oct 2015
  - Organize members to host Late Autumn Concert.
  - Organize members to host Sports Meeting.
  - Organize members to host Badminton Competition.

Association of Programming and Algorithms, BIT

- Minister of Personnel   Sep 2013 – Jun 2014
  - Organize and invite programming contest experts to deliver lectures.
  - Host Freshman Enrollment Programming Contest in the end of the first semester every year.

Annual Programming Contest, BIT

- Judge and Problem Provider   May 2015 – May 2017
  - Judge the solutions and explain descriptions of the problems during the contests.
  - Provide several problems for the contests and verify all the selected problems.

LANGUAGES

- Mandarin: Native language.
- English: Fluent.

SKILLS

- LaTeX, Python, Java, Scala, C/C++
- PyTorch, Tensorflow, Keras
- ...