Irene (Zihui) Li | Résumé

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Education

Yale University, USA
PhD Student (advised by Prof.Dragomir Radev), *Aug. 2017 - June 2022 (Expected)*
Research topics include natural language processing and graph neural networks; other interests are transfer learning, domain adaptation, summarization, general machine learning and NLP with clinical data (EHRs).

Yale University, USA
Masters in Philosophy (M.Phil), *Aug. 2017 - Mar. 2020*
Research topics include natural language processing and graph neural networks.

University College Dublin, Ireland **First Honor Degree**
Master Degree of Science, *Sept. 2014 - Aug. 2015*
Majoring in Data Science. Thesis: *An Online Segmentation Method using Dynamic Time Warping.*

Wuhan Polytechnic University, China **Top 5%**
Bachelor Degree of Management (First Degree), *Sept. 2010 – Jun. 2014*
Bachelor's Degree of English Language and Literature (Secondary Degree)

Experience

Tencent AI Lab, Seattle, USA
Research Intern *June 2021 – Aug. 2021*
Applying graph neural networks to solve AMR Coreference Resolution.

IBM Research Almaden, USA
Research Intern *June 2019 – Aug. 2019*
Interned in the Scalable Knowledge Intelligence team, and worked on cross-lingual classification tasks for IBM SystemT.

Baidu Inc.,Beijing, China
Research Intern *June 2018 – Aug. 2018*
Worked on text summarization with transfer learning.

Accenture AI TechLab, Ireland
Research Engineer *Apr. 2017 – Jul. 2017*
Worked on applied deep learning models: prediction using LSTM, natural language processing on specific domain texts using CNN and attention-based model.

Adapt Data Center, Ireland
Junior Researcher *Mar. 2016 – Feb. 2017*
Research topic including recommendation systems, domain adaptation and NLP.

IBM Research Dublin, Ireland
Research Intern (Care Manager Team with IBM Watson) *June 2016 – Aug. 2016*
Worked with deep learning models in the healthcare domain, developed CNNs to classify clinical sentences.

Griffith College Dublin, Ireland
Part-time Instructor *Jan. 2016 – May. 2016*
Instructor for the course Distributed Systems.

Japan Science and Technology Agency (JST), Ireland
Research Assistant (Big Data Group) *Jun. 2015 – May 2016*
Research on Loopy Belief Propagation algorithm and implementations by Swift. Research on large-scale Graph Database algorithm and performance modeling by applying Deep Learning.

Insight Centre for Data Analytics, University College Dublin, Ireland
Research Intern *May 2015 – Aug. 2015*
Assisted research fellows on a research of an online segmentation algorithm on sensor-collected data.

Publications

Irene Li, Vanessa Yan, Dragomir Radev. *Efficient Variational Graph Autoencoders for Unsupervised Cross-domain Prerequisite Chains*. Efficient Natural Language and Speech Processing Workshop, NeurIPS 2021

Irene Li, Aosong Feng, Hao Wu, Tianxiao Li, Yixin Li, Ruihai Dong and Toyotaro Suzumura. *Heterogeneous Graph Neural Networks for Multi-label Text Classification*. Under review, Neuralcomputing, 2021

Irene Li, Prithviraj Sen, Huaiyu Zhu, Yunyao Li and Dragomir Radev. *Zero-shot Instance-Weighting for Cross-lingual Text Classification*. RepL4NLP Workshop, ACL, 2021

Irene Li, Jessica Pan, Jeremy Goldwasser, Neha Verma, Wai Pan Wong, Muhammed Yavuz Nuzumlalı, Benjamin Rosand, Yixin Li, Matthew Zhang, David Chang, R. Andrew Taylor, Harlan M. Krumholz and Dragomir Radev. *Neural Natural Language Processing for Unstructured Data in Electronic Health Records: a Review*. Under review, ACM Computing Surveys, 2021

Irene Li, Vanessa Yan, Tianxiao Li, Rihao Qu and Dragomir Radev. *Unsupervised Cross-Domain Prerequisite Chain Learning using Variational Graph Autoencoders*. ACL, 2021

Irene Li, Alexander Fabbri, Swapnil Hingmire, and Dragomir Radev. *R-VGAE: Relational-variational Graph Autoencoder for Unsupervised Prerequisite Chain Learning*. COLING, 2020

Irene Li, Yixin Li, Tianxiao Li, Sergio Alvarez-Napagao, Dario Garcia-Gasulla, Toyotaro Suzumura. *What are We Depressed about When We Talk about COVID-19: Mental Health Analysis on Tweets Using Natural Language Processing*. SGAI International Conference on Artificial Intelligence, 2020

Irene Li, Michihiro Yasunaga, Yavuz Nuzumlali, Cesar Caraballo, Shiwani Mahajan, Krumholz, Harlan and Dragomir Radev. *A Neural Topic-Attention Model for Medical Term Abbreviation Disambiguation*. Machine Learning for Health Workshop, NeurIPS 2019

Alexander Fabbri, **Irene Li**, Tianwei She, Suyi Li and Dragomir Radev. *Multi-News: a Large-Scale Multi-Document Summarization Dataset and Abstractive Hierarchical Model*. ACL, 2019

Irene Li, Alexander Fabbri, Robert Tung and Dragomir Radev. *What Should I Learn First: Introducing LectureBank for NLP Education and Prerequisite Chain Learning*. AAAI, 2019

Michihiro Yasunaga, Jungo Kasai, Rui Zhang, Alexander Fabbri, **Irene Li**, Dan Friedman, and Dragomir Radev. *ScisummNet: A Large Annotated Corpus and Content-Impact Models for Scientific Paper Summarization with Citation Networks*. AAAI, 2019

Tao Yu, Rui Zhang, Michihiro Yasunaga, Yi-Chern Tan, Xi Victoria Lin, Suyi Li, Heyang Er, **Irene Li**, Bo Pang, Tao Chen, Emily Ji, Shreya Dixit, David Proctor, Sungrok Shim, Jonathan Kraft, Vincent Zhang, Caiming Xiong, Richard Socher and Dragomir Radev. *SParC: Cross-Domain Semantic Parsing in Context*. ACL, 2019

Alexander Fabbri, **Irene Li**, Prawat Trairatvorakul, Yijiao He, Wei Tai Ting, Robert Tung, Caitlin Westerfield and Dragomir Radev. *TutorialBank: A Manually-Collected Corpus for Prerequisite Chains, Survey Extraction and Resource Recommendation*. ACL, 2018

Tao Yu, Rui Zhang, Kai Yang, Michihiro Yasunaga, Dongxu Wang, Zifan Li, James Ma, **Irene Li**, Qingning Yao, Shanelle Roman, Zilin Zhang, and Dragomir Radev. *Spider: A Large-Scale Human-Labeled Dataset for Complex and Cross-Domain Semantic Parsing and Text-to-SQL Task*. EMNLP, 2018

Mark Hughes, **Irene Li**, Spyros Kotoulas and Toyotaro Suzumura. *Medical Text Classification using Convolutional Neural Networks*. Informatics for Health Conference, 2017

Professional Skills

Programming: Python, PyTorch, TensorFlow

Techniques: Natural Language Processing, Deep Learning, Neural Graph Networks, Summarization, Machine Learning, Transfer Learning

Links

Personal Blog: ireneli.eu

Google Scholar: https://scholar.google.com/citations?user=JuYPjCMAAAAJ&hl=en

Linkedin: https://ie.linkedin.com/in/irenelizihui

Github: https://github.com/IreneZihuiLi