

# QIUCHI LI

(+45)52733409  $\diamond$  qiuchi.li@di.ku.dk

Universitetsparken 1, Copenhagen, Denmark, 2100 København

Personal Academic Website: [qiuchili.github.io](https://qiuchili.github.io)

## EDUCATION

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### University of Padua

Ph.D in Engineering

Department of Information Engineering

*October 2017 - October 2020*

### Tsinghua University

Bachelor of Engineering

Department of Electronic Engineering

*September 2011 - July 2015*

## RESEARCH INTERESTS

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My general research interests are Information Retrieval (IR) and Natural Language Processing (NLP). My primary interests are within the interdisciplinary field of quantum computing and natural language processing. I am working on building quantum-theoretic frameworks for language representation and understanding, with application to IR and NLP tasks by complex-valued neural networks or tensor networks. In the meantime, I am keen on addressing NLP and IR problems with models that could be implemented on quantum devices.

## EXPERIENCES

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### Postdoctoral Researcher, University of Copenhagen

*January 2021 -*

- Automatic generation of contact messages from job recruiters to job seekers

### Visiting Researcher, University of Montreal, Canada

*January 2020 - April 2020*

- Quantum-inspired models for multimodal sentiment analysis
- Advisor: Prof. Jian-yun Nie

### Visiting Researcher, University of Copenhagen, Denmark

*August 2019 - December 2019*

- Quantum-inspired models for multimodal sentiment analysis
- Advisor: Prof. Christina Lioma

### Visiting Researcher, Beijing Institute of Technology, China

*January 2019 - March 2019*

- Quantum-inspired models for sentiment analysis
- Advisor: Prof. Dawei Song

### Early-stage Researcher (ESR), University of Padua, Italy

*October 2017 - Present*

- Investigation of quantum-theoretic frameworks for accessing and retrieving multimodal data.
- Advisor: Prof. Massimo Melucci

### Research Student, Tsinghua University, China

*October 2014 - July 2015*

- Opinion mining and sentiment analysis on micro-blog data.
- Advisor: Prof. Ji Wu

## RESEARCH PROJECTS

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**Machine Learning for Personalized and Persuasive Job Recommendation (JobMatch)** *January 2021 -*

- Role: Postdoctoral Researcher, primarily involved in scientific development

**Quantum Information Access and Retrieval Theory (QUARTZ)** *October 2017 - September 2020*

- Supported by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 721321.
- Role: Early-stage Researcher (ESR)

**Quantum Information Access and Retrieval Theory and Applications** *April 2018 - January 2021*

- Intergovernmental Cooperation and Innovation Program supported by the China Innovation Funding 2017YFE0111900.
- Role: Researcher

**Retrieving New Vulnerability Information from Evolving Software Development** *October 2015 - October 2017*

- Funded by the department of Computing & Communications, Open University
- Role: Researcher

## SELECTED PUBLICATIONS

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- **Qiuchi Li**, Dimitris Gkoumas, Alessandro Sordoni, Jianyun Nie, and Massimo Melucci. "Quantum-inspired Neural Network for Conversational Emotion Recognition," *Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI)*, 2021.
- **Qiuchi Li**, Dimitris Gkoumas, Christina Lioma, Massimo Melucci. "Quantum-inspired Multimodal Fusion for Video Sentiment Analysis," *Information Fusion* (Impact Factor: 13.669), 2020.
- Benyou Wang, Donghao Zhao, Christina Lioma, **Qiuchi Li**, Peng Zhang, and Jakob Grue Simonsen. "Encoding Word Order in Complex Embeddings," *International Conference on Learning Representations (ICLR)*, 2020.
- **Qiuchi Li\***, Benyou Wang\*, and Massimo Melucci. "CNM: An Interpretable Complex-Valued Network for Matching." *The North American Chapter of the Association for Computational Linguistics (NAACL)*, 2019. (\*Equal Contribution) (**Best Explainable NLP Paper**)
- Chen Zhang, **Qiuchi Li**, and Dawei Song. "Syntax-Aware Aspect-Level Sentiment Classification with Proximity-Weighted Convolution Network," *International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2019.
- **Qiuchi Li**, Jingfei Li, Peng Zhang, and Dawei Song. "Modeling Multi-Query Retrieval Tasks Using Density Matrix Transformation," *International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2015.

## AWARDS AND HONOURS

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- **Best Explainable NLP Paper Award** of the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) *June 2019*
- The paper "Quantum-inspired Multimodal Fusion for Video Sentiment Analysis" has been reported by TechXplore at [this webpage](#)

- **Proceedings co-chair** of Italian Information Retrieval Workshop (IIR) *September 2019*
- **Proceedings co-chair** of ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR) *September 2018*
- **Second Prize** in the 15th “Challenge Cup” science and technology innovation competition for college students *April 2013*
- **Outstanding Student Scholarship** of Tsinghua University *November 2012*

## SKILLS

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- **Languages:** Mandarin/English
- **Toolbox/Software:** PyTorch, TensorFlow, Keras, CUDA, cuDNN, LATEX
- **Programming Languages:** Python, MATLAB, R, C/C++, Java, Verilog

## EXTRA-CURRICULUM ACTIVITIES

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- **GO:** Second-class athletes of China, Tsinghua University Go Team Member, Co-Champion of the 43rd London Open Go Tournament
- **Jianzi (Shuttlecock):** Finalist of the 8th National Traditional Sports Games in Beijing, Champion & Record Setter of Tsinghua University Freshmen Sports Meeting
- **Bridge:** 10th place in the Bridge Championship for High School Students, Beijing, China