

Yifu Qiu

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EDUCATION

University of Edinburgh/Cambridge, UK

Oct 2022 - Oct 2026

PhD in Natural Language Processing

- Advisors: Dr Shay Cohen (Edinburgh), Prof Anna Korhonen (Cambridge), Dr Edoardo M. Ponti (Edinburgh).
- Research Interests: Natural Language Processing, Machine Learning, Crosslingual NLP, Summarization.
- Fully-funded by Informatics Global PhD Scholarship, degree done in conjunction with the Language Technology Lab at University of Cambridge as part of the ELLIS programme (< 5% acceptance).

University of Edinburgh, UK

Sep 2020 - Aug 2021

*MSc in Cognitive Science (Specialism in Natural Language Processing), **Distinction**.*

- Thesis: Text Summarization Guided by Latent Hierarchical Document Structure, advised by Dr Shay Cohen
- Research Interest: Text Summarization, Structured Prediction, Graph Neural Networks

BNU-HKBU United International College, China

Sep 2016 - Aug 2020

BSc (Hons) in Computer Science and Technology, (1st Class Honours).

- Final Year Project: Deep Learning-based Financial Forecasting and Trading System, advised by Dr Raymond Lee

EXPERIENCE

NLP Research Intern

Nov 2021 – Aug 2022

Baidu, Inc.

Beijing, China

- A gap-year research intern working with Dr Hongyu Li and Dr Jing Liu in the Natural Language Processing department of Baidu, Inc., focusing on dense information retrieval and open-domain question answering.
- Developed a large-scale Chinese passage retrieval benchmark from the real-world applications, named DuReader-Retrieval.
- Researched in improving the Diversity of Dense Retriever from Natural Language Inference Supervision.

Research Assistant

Aug 2020 – Nov 2020

BNU-HKBU United International College

Zhuhai, China

- Responsible for implementing the Quantum Finance Software Development Kit on the MetaTrader4 platform.
- Developed the QF-TraderNet with the novel quantum price level-based action space to realize the intraday automatic trading with deep reinforcement learning model.

Computer Vision Engineer

Jun 2019 – Sep 2019

Lingnan Big Data Institute

Zhuhai, China

- Reproduced and evaluated the deep computer vision models (e.g., ResNet and VGG) on the internal real-world dataset.

Software Development Engineer

Jun 2018 – Sep 2018

China Southern Airlines

Guangzhou, China

- Assisted the Java web development by Struts + Spring + Hibernate.

AWARDS

- Member, **Oxford Machine Learning Summer School**, 2022.
- Member, **European Laboratory for Learning and Intelligent Systems (ELLIS) PhD Program**, affiliated with University of Edinburgh and University of Cambridge, 2022.
- **Informatics Global PhD Scholarships**, School of Informatics, University of Edinburgh, 2022.
- **Lord Frederick Cavendish Award**, Lucy Cavendish College, University of Cambridge, 2022.
- Member, **Cornell, Maryland, and Max Planck Pre-Doctoral Research School (CMMRS)**, 2021.
- **Best Oral Award**, 3rd International Conference on Artificial Intelligence Applications and Technologies, 2019.
- First-Class (**Top 1%**) Scholarship, BNU-HKBU UIC, 2019, 2020.

- **Best Final Year Project** of Computer Science & Technology Program, BNU-HKBU UIC, 2020.
- **National 2nd-Class Prize**, China Undergraduate Computer Program Design Contest, 2020.
- **Top 2%**, 2019-2020 Global Financial Modeling & AI Investment Competition, 2020.
- **Diamond Award**, Student Leadership Path Program, BNU-HKBU UIC, 2020.
- 2nd-Class Prize at China Undergraduate Mathematical Contest in Modelling, Guangdong Region, 2018, 2019.
- 3rd-Class Prize at Interdisciplinary Contest in Modelling (ICM), 2019.
- Excellent Student Tutor, Personal Growth and Counselling Center, BNU-HKBU UIC, 2018.

RESEARCH AND PUBLICATION LIST

Abstractive Summarization Guided by Latent Hierarchical Document Structure

Yifu Qiu, Shay Cohen

The 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP 2022)

DuReader-Retrieval: A Large-scale Chinese Benchmark for Dense Information Retrieval from Real-World Applications

Yifu Qiu, Hongyu Li, Yingqi Qu, Ying Chen, Qiaoqiao She, Jing Liu, Hua Wu, Haifeng Wang

The 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP 2022)

Multi-hop Question Answering based on Position-Aware Query Attention Graph Networks

Yifu Qiu, Anda Zhou, Ege Ersu

MLP Course project recommended as publication by Dr Hakan Bilen

QF-TraderNet: Intraday Trading via Deep Reinforcement with Quantum Price Levels based Profit-and-Loss Control

Yifu Qiu, Yitao Qiu, Yicong Yuan, Zheng Chen and Raymond Lee

Frontiers in Artificial Intelligence

Hybrid Chaotic Radial Basis Function Neural Oscillatory Network (HCRBFNON) for Financial Forecast and Trading System

Yifu Qiu, Yicong Yuan, Zheng Chen, Raymond Lee

2019 IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2019)

A Hybrid Chaotic Oscillatory Neural Network (HCONN) Based Financial Time Series Prediction System

Yifu Qiu, Raymond Lee

The 3rd International Conference on Artificial Intelligence Applications and Technologies

TECHNICAL SKILLS

Languages: English, Chinese

NLP Toolkits: Huggingface, NLTK, spaCy, FairSeq, Stanford CoreNLP, AllenNLP, GenSim

Deep Learning Toolkits: TensorFlow (1.X, 2.0), PyTorch, Keras, PaddlePaddle

Machine Learning Toolkits: Numpy, Pandas, Scikit-learn

Data Analysis Toolkits: R, Python, Seaborn and Matplotlib (Visualization), SPSS, Excel

Document Editing: Latex, Word

Programmings: Java/JavaScript, Python, C/C++, MySQL, Matlab, MQL in MetaTrader4