

Shiyin (Sherilyn) Wang

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EDUCATION

Course 6, Massachusetts Institute of Technology, Massachusetts, US

Jan 2019 – May 2019

2019 Spring Special Student Program

GPA: 5.0/5.0 (48 units)

Computer Science, Tsinghua University, Beijing, China

Aug 2016 - Jul 2020

Bachelor of Science in Computer Science; Enrolled in the Yao Class (a pilot computer science class of 38 students advised by Turing Award Laureate Professor Andrew Chi-Chih Yao); GPA: 3.63/4.00 (158 credits);

Core Courses: Algorithm Design, Artificial Intelligence, Numeric Analysis, Data Structure, Game Theory, Network Science, Quantitative Economics, Principal and Application of Database

Statistics (Minor), Tsinghua University, Beijing, China

Sept 2017 - Jul 2020

Core Courses: Statistical Inference, Multivariate Statistical Analysis, Introduction to Data Science, Bayesian Theory, Nonparametric Statistics

RESEARCH EXPERIENCES

Disentangle Private Information from Edge-Cloud Training | MIT 6.100 Research Project

Feb 2019 – May 2019

Advisor: **Song Han**, Massachusetts Institute of Technology

- Designed a differential privacy guaranteed framework for edge-cloud training with theoretical proof
- Analyzed the trade-off between performance and privacy
- Submitted to NeurIPS 2019

Biological Network Analysis | Stanford | Research Assistant

Jul 2019 – Aug 2019

Advisor: **Russ B. Altman**, Stanford University

- Build biological networks
- Mine relationships from biological literatures

Complementary Learning for Named Entity Recognition | UIUC | Research Assistant

Jun 2017 - Sept 2017

Advisor: **Jiawei Han**, Abel Bliss Professor, University of Illinois at Urbana-Champaign

- Defined a new problem setting “Complementary Learning”: every dataset is partially labeled with limited categories
- Proposed a learning framework CRF+LSTM to conduct named entity recognition on multi-source data
- Coauthored a paper submitted to CIKM 2019
- Also helped to complete a KDD demo SetSearch+ at the beginning of my intern

Inferencing Drug Responses by Drug-Gene Dynamic Interaction Networks | Course Project

Apr 2019 – May 2019

- Predicted the drug responses through inferencing on network
- Combined mined text patterns from PubMed literatures and structured interaction types

Fast Top-k Area Topics Extraction with Knowledge Base | Tsinghua University | Research Assistant

Jun 2017 - Sep 2017

Advisor: **Jie Tang**, Vice Chair of Department of Computer Science and Technology, Tsinghua University

- Proc. IEEE DSC 2018 (<https://arxiv.org/abs/1710.04822>)
- Crawled data from Wikipedia knowledge base
- Designed models to analyze the relationships between concepts
- Contributed by putting forward a method to solve inaccurate data source problem innovatively

Unsupervised Smart Acapella Auto-tuning | Course Project

Nov 2018 – Jan 2019

- The first machine learning approach to acapella tuning, to the best of our knowledge
- Combined RNN and CNN through GAN framework

Chinese Government Report Computational Analysis | Interdisciplinary Research in Politics

Sep 2018 - Now

- Crawled 10000+ government annual reports
- Applied language models to analyze themes variation in temporal, geometrical, and hierarchical scale

AWARD AND SCHOLARSHIP

- 2019 Stanford UGVR Summer Scholarship Program
- 2017 Mathematical Contest in Modeling Meritorious Winner
- 2016&2017&2018&2019 Xuetao Scholarship (5000 RMB)
- 2017&2018 Baidu Scholarship (1000 RMB)
- 2018 Tsinghua TopOpen Student Research Funding Program (30,000 RMB)

LEADERSHIP AND ACTIVITIES

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| BRICS Youth Forum Delegate | Jul 2017 |
| <ul style="list-style-type: none">➤ Organized by All-China Youth Federation➤ The highest level of youth official diplomacy➤ Negotiated a proposal that was submitted to the BRICS Leaders Xiamen Summit | |
| Tsinghua Global South Culture Immersion Program – Egypt | Jan 2018 |
| <ul style="list-style-type: none">➤ Wrote a paper about the Islamization of Egypt in the sixth century➤ Studied two weeks in the American University in Cairo | |
| Field Study in Guiyang about Poverty and Big Data Industry | Feb 2018 |
| <ul style="list-style-type: none">➤ Interviewed government leaders➤ Investigated the rural area and big data industry➤ Wrote a report and provided it to the director of the Guizhou Big Data Development Administration | |

SKILLS

Programming Languages: Python, C++, R

Language: English (Fluent), Chinese (Native)