(Sherilyn) Shiyin WANG

Computer Science Undergraduate in Tsinghua Yao Class 2020

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RESEARCH EXPERIENCE

Biological Network Analysis 🔗
Advisor: Russ B. Altman, Helix Group in Stanford University

📅 Jul 2019 – Aug 2019   📍 CA, USA

- Reviewed the usage of protein-protein interaction networks from a biologists' perspective
- Also worked on drug synergy prediction by few-shot learning approach

Disentangle Private Information from Edge-Cloud Training 🔗
Advisor: Song Han, HanLab, Massachusetts Institute of Technology(MIT)

📅 Feb 2019 – May 2019   📍 MA, USA

- Designed a differential privacy guaranteed framework for edge-cloud training with theory
- Analyzed the trade-off between performance and privacy

Complementary Learning for Named Entity Recognition 🔗
Advisor: Jiawei Han, Data Mining Group, University of Illinois at Urbana-Champaign(UIUC)

📅 July 2018 - Sep 2018   📍 IL, USA

- Named entity recognition on biological domain aggregating partially labeled datasets
- Helped to improve the Set Search+ Oxygen demo for KDD 2018

Fast Top-k Area Topics Extraction with Knowledge Base
Advisor: Jie Tang, Data Engineering Group, Tsinghua University

📅 Jun 2017 – Sep 2017   📍 Beijing, China

- Proc. IEEE DSC 2018 (https://arxiv.org/abs/1710.04822)
- Crawled data from Wikipedia and modeled relationships between categories
- Proposed a method to solve inaccurate data source problem innovatively

PROJECT EXPERIENCE

Computational Analysis of Chinese Government Reports
Advisor: Xiao Tang, School of Public Poligy and Management, Tsinghua University

📅 Sep 2018 – Jan 2019   📍 Beijing, China

- Crawled and constructed a dataset of 13148 government annual reports
- Mined, constructed, and validated a hierarchical structural orgainzation of the reports
- Refined LDA model to extract topics from texts and improved the algorithm efficiency

Restaurant Management Application 🔗
Database Course Project in Tsinghua University

📅 Nov 2018 – Dec 2018   📍 Beijing, China

- Full-stack web application: HTML/CSS + Python Flask + Oracle

Emergency Room Efficiency, Effectiveness, and Accessibility 🔗
MIT Policy Hackathon Organized by MIT IDSS

📅 Apr 2019   📍 MA, USA

- Emergency room policy design based on provided data in 24 hours as the group leader
- Responsible for data analysis, data visualization, modeling, and report formatting

Werewolf Game Software
Object-Oriented Programming Course Project in Tsinghua University

📅 May 2017 – Jun 2017   📍 Beijing, China

- Multi-user desktop application through TCP protocol for the "Werewol" game
- Contributed to all the GUI part and client logic part

EDUCATION

Computer Science (Yao Class)
Bachelor, Tsinghua University

📅 Aug 2016 – Jul 2020

(Yao Class) 39 students advised by Turing Award Laureate Prof. Andrew Chi-Chih Yao
Core Courses: Linear Algebra, Data Structure, AI, Database, Numeric Ana., Comp. Bio., Rand. Net. Opt., Advanced Net. Secu., Quan. Econ., Game Theory, Comp. Urban System Regulation
Junior & Senior GPA: 3.9/4.0 (37 credits)
Overall GPA: 3.7/4.0 (163 credits)

Statistics
Minor, Tsinghua University

📅 Sep 2017 – Jul 2020

Core Courses: Stat. Inference, Multivariate Stat. Ana., Intro. to Data Science, Bayes. Theory
Overall GPA: 3.6/4.0 (19 credits)

Elec. Eng. and Computer Science
Special Student Program, MIT

📅 Feb 2019 - May 2019

Courses: 6.437 Inference and Information (Graduate Level), 6.802 Comp. Bio., 6.045 Automata, Computability, and Complexity, 6.100 EECS Research Project
Overall GPA: 5.0/5.0 (48 units)

AWARDS

Global Competence Fellow 2019 - 2020
🎓Tsinghua

First-tier fellowship to 20 elites interested in global issues with adequate knowledge and negotiation skills.

Stanford UGVR Scholar 2019
🎓Stanford & Tsinghua

About $11,600 sponsorship for summer research internship in Bioengineering Department. Only 18 scholars per year are admitted from China.

Xuetang Scholarship 2016 - 2020
🎓Tsinghua

Annual 6,000 CNY to each Yao Class students.

Baidu Scholarship 2017 & 2018
🎓Tsinghua & Baidu

Scholarship for all-round development and comprehensive excellence.

TopOpen Research Funding 2018
🎓Tsinghua

30,000 CNY research funding at UIUC in 2018.

Mathematical Contest in Modeling Meritorious Winner 2017 🎓COMAP

Use circuit theories and software to model and optimize the traffic flow in Seattle innovatively.

WORK EXPERIENCE

Community Development Officer
Common Future Fund

📅 Apr 2017 - May 2018 📍 Beijing, China

- Organized exhibitions, reading groups, online classes, and social media accounts
- To raise public awareness, gain social impact, and seek donations

Interpreter
IP Group

📅 Sep 2018 & Oct 2019 📍 Hong Kong & Shanghai & Beijing, China

- IP Group Deep Tech Forum
- Worked as conference assistant for the CEOs of British startups

Teaching Assistant for "Algorithmic Economics"
Institute for Interdisciplinary Information Sciences, Tsinghua University

📅 Sep 2019 - Jan 2020 📍 Beijing, China

- Responsible for the data profiling introduction
- Statistics consultant for the course projects

LEADERSHIP AND ACTIVITIES

BRICS Youth Forum Delegate
All-China Youth Federation

📅 Aug 2017 📍 Beijing, China

- The highest level of youth official diplomatic event
- Negotiated proposal that was submitted to the BRICS Leaders Xiamen Summit

Field Study in Guiyang about Poverty and Big Data Industry 🔗
Guizhou-Cloud Big Data

📅 Feb 2018 📍 Guizhou, China

- Interviewed government leaders and investigated the rural areas and big data industry
- Wrote a report to the the director of the Guizhou Big Data Development Administration

Global South Culture Immersion Program Egypt 🔗
The American University in Cairo

📅 Jan 2018 - Feb 2018 📍 New Cairo, Egypt

- Studies two weeks in the American University in Cairo and visited historical sites
- Wrote a report about the Islamization of Egypt in the sixth century

Sea Turtle Protection Volunteer 🔗
World Without Borders

📅 Aug 2017 📍 Galle, Sri Lanka

- Sea turtle protection volunteer in Galle, Sri Lanka
- Field trip around the island about the colonial history

Student Union
Design Group, CS Department, Tsinghua

📅 Sep 2017 - Dec 2018 📍 Beijing, China

- Designed posters for student activity
- Designed stage background for 2017 Computer Science Students Festival

LIFE PHILOSOPHY

"The future is today."

STRENGTHS

Bioinformatics | Data Mining

Statistics | Machine Learning

International Relations | Leadership

Communication | Global Perspective

LANGUAGES

English ●●●●○
Chinese ●●●●●
Español ●○○○○

SKILLS

Data Massive
As a Computer Science student with a Statistics minor, I can apply models in large scale data with efficient algorithms. Besides the accuracy of algorithms, I am also concerned with efficiency.

Coding
I am enrolled in Tsinghua Yao Class and won scholarships each year. I am familiar with Python, R, and C++. I am also passionate about learning new programming languages.

Open-Minded and Global Experiences
Instead of just sight-seeing, I love talking to the local people around the world. I have been to Nepal, Sri Lanka, Egypt, the USA, Singapore, and Turkey during my undergraduate program. I did several fields, such as investigating poverty and big data in Guizhou. Activities like BRICS Youth Forum and IMUSE have provided me a broad view of the global affairs.

Communication
I am an active member of the Tsinghua Association of Student International Communication (ASIC) who has participated in many international activities. I have participated in many diplomatic events as a representative of China/Tsinghua. I am learning Spanish now.