

(Sherilyn) Shiyin WANG

Professional Software Developer & Biomedical Data Mining Researcher | International Relations Amateur

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RESEARCH EXPERIENCE

Biological Network Analysis 🧬

Advisor: Russ B. Altman, Helix Group, 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
- Crawled data from Wikipedia and modeled relationships between categories

WORK EXPERIENCE

Software Engineer

Google Tokyo

📅 (Future) Aug 2020 -

📍 Tokyo, Japan

- L3 - An Android Application Development Team

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

PROJECT EXPERIENCE

My Fight with the COVID-19 🧬

Undergrad Thesis + Mental Health Volunteer + MIT COVID-19 Africa Hackathon.....

📅 Jan 2020 – Jul 2019

📍 Al Ain, UAE & Beijing, China

- Undergraduate Thesis: "Biomedical Causal Graph Construction by Single-Cell RNA Sequences and COVID-19 Literature" (A:4.0)

Blockchain Mobile Application for Clinical Records Management

Advisor: Leila Fayeze Ismail, INDUCE Lab, United Arab Emirates University

📅 Feb 2020 – Mar 2019

📍 Al Ain, UAE

- Android (Kotlin) + Hyperledger

EDUCATION

Computer Science (Yao Class)

Bachelor, Tsinghua University

📅 Aug 2016 – Jul 2020

Core Courses: Data Structure, Artificial Intelligence, Database, Numeric Analysis, Computational Biology, Advanced Network Security, Quant. Econ., Game Theory, Comp. Urban System Regulation, Quantum Computer Science, Operating System

Junior & Senior GPA: 3.9/4.0 (82 credits)

Overall GPA: 3.7/4.0 (208 credits)

Statistics

Minor, Tsinghua University

📅 Sep 2017 – Jul 2020

Core Courses: Inference, Linear Regression, Multivariate Stat., Bayesian Methods, Nonparametric Stat., Design and Analysis of Experiments

Overall GPA: 3.7/4.0 (25 credits)

Elec. Eng. and Computer Science

Special Student Program, MIT

📅 Feb 2019 - May 2019

Courses: 6.437 Inference and Information, 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.

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

LEADERSHIP AND ACTIVITIES

Deep Dive Program during the COVID-19 Crisis 🌐

Asian University Alliance | The United Arab Emirates University

📅 Jan 2020 – Mar 2020 📍 Al Ain, United Arab Emirates

- 2-week cultural communication in represent of Tsinghua University
- Invited to be a 1-month visiting student auditing courses and volunteering in research

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

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

Japanese

Spanish (Español)

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SKILLS

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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, Go, Java, sand 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, Turkey, and the UAE during my undergraduate program. I did several field studies, 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 Japanese now.