

SHIYI (DENNIS) HU

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EDUCATION

New York University Shanghai

BS in Data Science, BS in Economics | GPA: 3.912/4.00

New York University Abu Dhabi – Fall 2021

New York University New York – Spring 2022

Awards: Peng Yachao Global Excellence Scholarship | NYU Shanghai 2022 Recognition Award | Dean's List 2020, 2021, 2022

Shanghai, China

Sep 2019 – May 2023

Abu Dhabi, United Arab Emirates

New York, United States of America

RESEARCH EXPERIENCE

Factual Generalization Capabilities of GPT-3 Across Domains (Courant Institute)

New York, USA

Undergraduate Researcher with Prof. Samuel Bowman

Mar 2022 – Jun 2022

- Cross-examined the falsehood patterns of large language models in six domains and explored truth-inductive prompts
- Crowdsourced 2000+ question-answer pairs to generate 200,000+ prompts with effectiveness evaluated on GPT-3
- Performed transfer learning on 36,000 samples to find that GPT-3 produces 43% less falsehoods with 5 more prompts

RL for CAD Flows and Secure Chip Design (NYU Abu Dhabi)

Abu Dhabi, UAE

Research Assistant to Prof. Ozgur Sinanoglu

Oct 2021 – Mar 2022

- Implemented reinforcement learning algorithms to replace human experts in the logic synthesis phase of chip design
- Proposed a novel A2C agent learning framework to simulate 30+ attack situations, enhancing chip security
- Delivered an average area improvement of 13.19% compared to expert-crafted circuits based on EPFL benchmarks

NBA Winning Rate and Season Record Prediction (NYU Shanghai)

Shanghai, China

Undergraduate Researcher with Prof. Li Guo

Mar 2021 – May 2021

- Implemented 6 different machine learning models to predict NBA game outcomes based on pre-game team stats
- Developed aggregate functions to automate raw dataset preprocessing and dynamic data extraction on 12,300 games
- Improved prediction accuracy by 5.8% over the brute homecourt advantage prediction with optimized model

PROFESSIONAL EXPERIENCE

Craft Associates

Shanghai, China

Data Analyst Intern (Web crawling, Python, Excel, NLP sentiment analysis)

Jul 2022 – Present

- Used python requests and absl to develop a pipeline that crawls, aggregates, and analyzes Weibo and WeChat posts
- Developed censorship-resistant NLP algorithms to filter 30,000+ web posts based on relevance to given keywords
- Delivered monthly data-curated market insights to clients from tech companies such as Qualcomm and Huawei

Applied Artificial Intelligence Center, Shanghai General Hospital

Shanghai, China

Research Analyst Intern (Deep learning, Data ethics, Bioinformatics)

May 2021 – Nov 2021

- Worked closely with a team of researchers to build an intelligent diagnosis platform for mild-symptom patients
- Gathered empirical patient data and trained a large neural network for arrhythmia detection with f1 score of 0.813
- Improved accuracy by 2.8% using leaky ReLU; utilized Grad-CAM to improve transparency on CNN-based models
- Presented two 3,000-word reports on the ethical and social impacts of the project to stakeholders in quarter conference

COMMUNITY SERVICE

United Nations World Food Program, Data Management Volunteer

Jun 2022 – Present

- Produced content analytics for 15+ videos for the World Food Program, 3 of which landed on the UN App
- Supported 3 interviews on WFP's programs on balance and mental wellbeing during prolonged lockdown periods

Global Writing and Speaking Fellows, NYU Shanghai Writing and Speaking Learning Assistant

Feb 2021 – Present

- Curated 30 total hours of academic writing practicums as a weekly series for Global Writing and Speaking Fellows
- 300+ hours of one-on-one tutoring with NYU undergraduates on writing research proposals, literature reviews, etc.

International Youth Neuroscience Association, Head of Events Committee

Feb 2020 – Present

- Planned reception for the Brain Awareness Week with a capacity for 300+ contestants, judges, audience, and panelists
- Executed outreach to Tongji University for competition events promotion and secured a place in its newsletter

Shanghai International Marathon, Volunteer

Nov 2019, 2020

- Distributed medals to the half-marathon and 10k race, helped with delivering food and medicine to 8 designated spots

SHKP Charity Run, Volunteer

Oct 2019

- Helped plan reception and scheduling for 17,000+ runners in charity for the Shanghai Children Health Foundation

SKILLS & INTERESTS

- **Programming skills:** Python (Numpy, Pandas, Flask, Pytorch), SQL, R, MongoDB, Stata, Bash, Verilog
- **Interests:** Athletic trainer, shooting guard on school basketball team; writer and translator on UnCoVer (a WeChat subscription account with 2k+ followers); amateur music producer and beatmaker