HONG JIN SU

Department of Computer Science
Faculty of Engineering, The Chinese University of Hong Kong
+86 13779954679 | email: hjsu@link.cuhk.edu.hk

EDUCATION

The Chinese University of Hong Kong   Hong Kong
B.Sc. in Computer Science   Sept 2018 – Present
- Major GPA: 3.90/4.00; Cumulative GPA: 3.73/4.00
- Related Courses: Fundamentals of Artificial Intelligence, Fundamentals of Machine Learning, Principles of Programming Languages, Introduction to Operating Systems, Formal Languages and Automata Theory, Probability and Statistics for Engineers, Software Engineering, Discrete Mathematics for Engineers, Linear Algebra and Vector Calculus for Engineers

Tsinghua University   Beijing, China
Exchange Student at Yao's Special Pilot Class   June 2019 – July 2019

Peking University   Beijing, China
Summer school student   July 2021 – Aug 2021

PUBLICATIONS

Taming Pre-Trained Language Models with N-gram Representations for Low-Resource Domain Adaptation
Shizhe Diao, Ruijia Xu, **Hongjin Su**, Yilei Jiang, Tong Zhang.
ACL 2021, Main Conference

RESEARCH EXPERIENCE

Research Intern in Natural Language Processing   Jan 2022-now
Instructor: Prof. Tao YU (HKU)
- Study the effectiveness of active learning with large pre-trained models.
- Identify distribution shift as an important dimension where active learning improves model performance by a large margin.
- Compare to efficient selection methods and analyze the influence of sentence embeddings, models size, acquisition functions, etc.

Research Intern in Natural Language Processing   July 2021-Jan 2022
Instructor: Prof. Tao YU (HKU)
- Select representative examples to save annotation budgets and computational resources.
- Select diverse examples that are dissimilar to pre-training data from target domains.
- Improve model domain adaptation performance by more than 10%.
   Under submission

Research Intern in Natural Language Processing   Sept 2020-Jan 2021
Instructor: Prof. Tong Zhang (HKUST)
- Explored effective strategies to adapt models to new domains at a low cost
- Selected domain-specific words to explicitly inform models of domain knowledge and enhance sentence embedding learning.
- Improved model performance on datasets from different domains by 2.66% on average.

Course Project of The Fundamentals of Artificial Intelligence   Sept 2020-Dec 2020
Instructor: Prof. Leung, Kwong-Sak (CUHK)
- Constructed AI systems for playing No Limit Hold'em poker game
- Used Q-learning, Deep-Q learning, Advantage Actor-Critic(A2C), and Actor-Critic Algorithm(A3C) to build models that could simulate human decision processes and handle complex situations with exponential numbers of states.
- Beat human players and several advanced AI players on the Internet by a large margin.

Research Intern in Information Theory and Group Testing June 2020-Aug 2020
Instructor: Prof. Sidharth Jaggi (CUHK)
- Explored efficient testing strategies to identify a small group of diseased people in a large population.
- Applied coupon collector algorithm, information theory, Markov chain model, and other inequalities including Chernoff bound to study algorithms to test people efficiently with low error probability.
- Proposed the theoretical lower bounds for the required number of tests and efficient non-adaptive testing algorithms that significantly reduce time complexity.

SELECTED AWARDS AND HONORS
- Wu Chung Scholarship   2021
- Computer Science Outstanding Academic Award   2021
- Engineering Dean's List   2021
- Pang Ching Cheung Scholarship   2020
- College Head's List   2020
- Engineering Dean's List   2020
- Dr. P. C. Woo Memorial Scholarship   2020
- Elite Stream Scholarship   2020
- Elite Stream Scholarship   2019

WORK EXPERIENCE

Web Engineering Group, BABYTREE GROUP. Xiamen, China
Assistant Site Engineer July 2019 – Aug 2019
- Implemented new features and functions.
- Checked potential bugs and problems reported by users

EXTRACURRICULUM ACTIVITIES

The Mainland Student Association in United College 2019-2020
- Raised more than 5000 HKD each year from the advertisement in social media for student activities as department secretary.
- Organized student activities including climbing, hiking, cycling, and cooking contests every week to boost student morale.

Computer and Language Skills
- Programming: Python, C, Java, C++, COBOL, Perl, ML, Prolog
- Tools: HTML, CSS, Linux, Github
- Library: PyTorch, Tensorflow, scikit-learn, SciPy
- Language: English, Toefl (108) GRE (333); Mandarin

Interests
- Badminton, Swimming, Piano, Running, Hiking, Traveling