HANG (FRANCIS) YU

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EDUCATION

Master of Science | ***Computer Science*** Aug. 2022 – Present (expected May. 2024)
University of Illinois at Urbana-Champaign Urbana, IL

Master of Science | ***Civil Engineering*** Aug. 2019 – Dec. 2021
University of Illinois at Urbana-Champaign Urbana, IL

Bachelor of Engineering | ***Civil Engineering*** Sep. 2016 – Jun. 2020
Zhejiang University Hangzhou, China

WORK EXPERIENCE

CS412 Intro. to Data Mining Graduate Teaching Assistant Aug. 2022 – Present
University of Illinois at Urbana-Champaign Champaign, IL

- Holding office hour for CS412: Intro. to Data Mining
- Homework and exam questions designing, checking and grading
- Course organization assistance and course forum question answering

Software Development Engineer Intern Apr. 2022 – Aug. 2022
Huawei Technologies Co., Ltd. Hangzhou, China

- Learned Kubernetes for centralized and distributed storage system
- Troubleshooted and fixed the bugs for storage system with container code

CS446 Machine Learning Course Assistant Sep. 2021 – Dec. 2021
University of Illinois at Urbana-Champaign Champaign, IL

- Campuswire question answering and emergence office hour attending
- Homework and exam questions sanity checking and grading

Deep Learning Engineer Intern Feb. 2021 – May. 2021
SimBioSys, Inc. Champaign, IL

- Developing and debugging 3D breast MRI segmentation model
- Production segmentation model validation for FDA submission

PROJECTS AND RESEARCH

Few-shot Vision-Language Transfer Learning | ***Publication*** Aug/2021 - Jan/2022
Paper "Rethinking Task Sampling for Few-shot Vision-Language Transfer Learning"
Accepted by COLING 2022 (MMMPIE Workshop), [PDF][CODE]
Authors: Zhenhailong Wang, **Hang Yu**, Manling Li, Han Zhao, Heng Ji

Towards Ubiquitous Image Data Bias | ***Pytorch*** May/2021 - Nov/2021
Paper **"Long-tailed Recognition Done Right?"** submitted to CVPR 2022
Authors: **Hang Yu**, Yuxiong Wang, Shu Kong
Long-tail recognition protocal study

Survey on Query-based Text Summarization Sep/2020 - Jan/2021
CS597 Independent Study supervised by Prof. Jiawei Han
Reproduce State-of-the-Art neural text summarization model results
Literature Review for Query-Based Text Summarization and Generic Text Summarization

Brain MRI Segmentation Competition UNet 3D Implementation | ***Pytorch*** Nov/2020 - Dec/2020
CS446 course project ranking on Kaggle, 7/82
Modified original UNet 3D and outperformed the strongest baseline (75%)
For more details: https://www.kaggle.com/c/cs446ece449-fa20/leaderboard

Analysis of Electric Vehicle Travel Patterns Using LPR | ***Python*** Nov/2019 - Jun/2020
Supervised by Prof. Sheng Jin at College of Civil Engineering & Architecture at ZJU
Applied K-means algorithm on license plate recognition (LPR) data for vehicle classification
Pattern extraction by spatial and temporal taxonomy

GRS Emission Prediction of Alkali- Activated Materials | ***MATLAB*** Jul/2019 - Aug/2019
Supervised by Prof. Sabbie Miller at Department of CEE at UC Davis
Predicted overall GRS emissions of different Alkali-Activated material combinations
Used MATLAB for simulation and results visualization

Honors and Awards

Outstanding Course Assistant Award 2021
Recognition by faculties as an outstanding course assistant [link]

Outstanding Undergraduate 2020
Recognition for top 20% of students in academics at Zhejiang University

Certificate of Excellent Engineering Training Program 2020
Special Certificate for excellent academic performance engineering students

Scholarship for Excellence in Research and Innovation Award 2019
Merit based scholarship to support students leading in innovative research and competitions

ASCE MidPac Regional Geowall Competition Championship 2019
Competition award by America Society of Civil Engineers

Certificate for Excellent Student Leader 2019
Certificate for students who make great contribution in leading the clubs or organizations on campus

Certificate for Excellent Student 2018, 2019
Certificate for top 20% students who maintain excellent comprehensive qualities

Third-Class Scholarship for Outstanding Student Award 2018, 2017
Scholarship for top 20% students who maintain excellent comprehensive qualities

Third-Class Scholarship for Outstanding Merits Award 2018, 2017
Merit based scholarship to support students who maintain top 20% on academic performance

Leadership & Volunteering

Host of 2018 Spring WCA Rubik's Cube Open, Hangzhou, China Mar/2018
Supported and supervised by WCA (World Cube Association) delegates
Organized one grand competition officially acknowledged by WCA
200+ domestic and international participants

Host of 2017 Winter WCA Fewest Move Asian League Hangzhou Branch, China Dec/2017
Supported and supervised by WCA (World Cube Association) delegates
The goal was to find the fewest moves to resolve a given scrambled cube
25 moves were identified as the best solution in the competition

Volunteer in Elementary School, Hangzhou Oct/2016 – Jun/2019
Teach Rubik's cube every Fri. afternoon at Yucai Education Group No.1 Experimental School
Organize ZJU magic show and magic cube club members to participate in the volunteer job

Skills

Languages: Chinese (Native), English (Proficient), Spanish (Beginner)
Programming: Python, Go, C++, C, Linux shell, MATLAB
Major Tools: Pytorch, Numpy, Pandas, Anaconda, GitHub, GitLab, Colab
Document Creation: LaTex, Markdown, Microsoft Office Suite