

Yufan Zhang

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EDUCATION

Duke Kunshan University (DKU) / Duke University (Duke) Dual Degree Undergraduate Program

May 2023

B.S. in Data Science (by DKU)

Kunshan, China

B.S. in Interdisciplinary Studies (Data Science, by Duke)

- Cumulative GPA: 3.74/4.0; Major GPA: 3.91/4.0
- Selected as Teaching Assistant for COMPSCI201 (Programming and Data Structures) and ECON101 (Economic Principles)
- Key courses: Programming and Data Structures A Algorithms and Databases A Cloud Computing A+
Principles of Machine Learning A Data Acquisition and Visualization A

RESEARCH EXPERIENCE

HCI Blockchain Research Group, DKU

Mar 2022 – Present

Research Assistant. Supervisor: Prof. Xin Tong, Assistant Professor of Computation and Design, and Prof. Luyao Zhang, Assistant Professor of Economics

- Crawled and conducted sentimental analysis on 100+ million tweets on the topic of ethical issues on NFT
- Conducted a co-design process with ~50 practitioners from NFT industry and proposed a design guideline for ethics on NFT

AlphaFold Research Group, DKU

Aug 2021 – Present

Student Research Assistant. Supervisor: Prof. Huansheng Cao, Assistant Professor of Environmental Science

- Developed a novel Graph Neural Network (GNN) based model for predicting catalytic turnover numbers in Escherichia coli, which achieved a reduction in RMSE of 14% than the existing model
- Achieved dimensionality reduction of ~1.7TB of output data from AlphaFold 2 by implementing Convolutional Autoencoders

Interdisciplinary Data Analysis, DKU

Jan 2022 – Apr 2022

Student Researcher. Supervisor: Prof. Peng Sun, Assistant Professor of Data Science

- Developed a novel GAN-based model for few-shot stylized multilingual font generation, which outperforms existing models in two scenarios: font style transfer within trained languages, and font style transfer with unseen languages

Institute of Computing Technology, Chinese Academy of Sciences

Jul 2021 – Aug 2021

Student Researcher. Supervisor: Prof. Shuhui Wang, Professor

- Developed a CycleGAN-based system to translate the image from one style to another without paired information
- Improved the quality of generated images by stabilizing the convergence by introducing a novel category loss
- Presented the proposed model to the program supervisor with an oral presentation and a technical written report

PUBLICATIONS & CONFERENCES

- **Zhang, Yufan**, et al. *MF-Net: A Novel Few-Shot Stylized Multilingual Font Generation Method*. [Accepted by ACM Multimedia 2022].
- **Zhang, Yufan**, et al. *Visualizing Non-Fungible Token Ethics: A Case Study On CryptoPunks*. [Submitted to ChinaVis 2022]

PROFESSIONAL EXPERIENCE

SciEcon CIC

Oct 2021 – Present

Creativity Chair, SciEcon Inaugural E-board

- Developed and deployed SciEcon NFT Research Lab websites on Inter Planetary File System (IPFS)
- Orchestrated SciEcon NFT research lab activities, including weekly meetings and the SciEcon NFT Symposium program

COMPSCI 201 Teaching Team, DKU

Jan 2021 – Mar 2021

Teaching Assistant

- Lectured 120 min-lab sessions and hold office hours to answer 30+ students' questions
- Developed 10+ Java programming exercises covering topics including OOP and data structures

Office of China Enrollment Management, DKU

Sep 2020 – Jan 2021

Student Assistant

- Utilized Python and Excel to document, clean and analyze graduate data from ~80 high schools in China
- Arranged campus tours and enrollment information sessions

SKILLS

- **Programming Languages:** Python, Java, C++, MATLAB
- **Machine Learning:**
 - **Toolkits:** PyTorch, scikit-learn
 - **Models:** Computer Vision (CNN, GAN, YOLO series), Graph Deep Learning (GNN, GAT, HGNN), Others (VAE)
- **Data Science:**
 - Data Acquisition: MySQL, Hadoop, Spark
 - Data Scrubbing: Pandas, NumPy
 - Modeling: Machine Learning
 - Visualization: Plotly, Tableau, D3.js, Matplotlib
- **Miscellaneous Technologies:** Linux, Git, Slurm, Docker, ArgoCD, Flask, OOP,
- **Solid mathematics fundamentals:** linear algebra, calculus, statistics, numerical analysis

LEADERSHIP & SERVICE

DKU Home, DKU

Feb 2020 – Oct 2020

Co-Chair of DKU Home (Kunshan High-Tech Zone)

- Hired weekly volunteers for volunteering activities at DKU Home (High-Tech Zone)
- Designed and orchestrated weekly volunteering activities with another co-chair

Crazy Chinese Club, DKU

Sep 2019 – Sep 2020

Co-Founder & Publicity Lead

- Co-founded and operated the Crazy Chinese club with 300+ students joining that helps international students from 20+ countries learn Mandarin and experience Chinese culture
- Managed publicity of Crazy Chinese to promote club activities by designing related materials (e.g. posters)

Student Media Center, DKU

Oct 2019 – Jan 2020

Member of the Creative Design Committee

- Participated in the co-branding between Duke Kunshan University and Suzhou Museum
- Assisted to edit the 2020 Duke Kunshan University orientation welcome videos

ADDITIONAL INFORMATION

- **Languages:** Chinese Mandarin (native), English (proficient)
- **Honors and Awards:**
 - Meritorious Winner (2021 MCM/ICM Contest in Modeling)
 - Silver Medal (iGEM 2021)
 - Top 100 Team Mainland China (L'Oréal 2021 Brandstorm)
- **Interests:** photography, digital arts, tech, ultimate frisbee