

XU Zixin

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EDUCATION

City University of Hong Kong

August 2020 - Present

Bachelor of Science in Data Science, minor in Computing - cGPA: **3.78/4.30**

Dean's List (2021-2023 SemA), Smart Decision / SimpleCredit Scholarships (2022)

Course Highlight

Statistical Methods and Data Analysis, Database System, Advanced Statistics, Big Data: the Arts and Science of Scaling, Foundation of Reinforce Learning, Bayesian Analysis, Machine Learning (Underline: A/A+, Other: A-)

PUBLICATION

1. **Z. Xu***, T. Li*, Y. S. Chu, X. Huang, J. Li, "Coordinate-based Neural Network for Fourier Phase Retrieval," *ICASSP 2024*. (* equal contribution, CCF-B)
2. R. Wang, S. Yang, Z. Liu, Y. Zhang, X. WANG, **Z. Xu**, J. Wang, S. LI "PhageScope: a well-annotated bacteriophage database with automatic analyses and visualizations," *Nucleic Acids Research*, 2023, gkad979, <https://doi.org/10.1093/nar/gkad979>.

RESEARCH EXPERIENCE

Coordinate-based Neural Network for Fourier Phase Retrieval

March 2023 - Present

- Technical Assistant, Supervised by Prof. Jizhou LI
- Developed a coordinate-based neural network for Fourier phase retrieval.
- Outperformed current unsupervised methods and outputted images with SNR around 60dB.

Online bacteriophage database: [PhageScope](#)

March - June 2023

- Designed and implemented interactive data visualization graphs (<https://phagescope.deepomics.org/>)
- An online bacteriophage database with interactive graphs that offers comprehensive annotations.
- A journal article published in *Nucleic Acids Research*.

Fake Face Detection

Sep - Dec 2023

- Transfer learning is based on different models aiming at detecting fake faces.
- The test accuracy is around 0.94.
- Report the influence of varying preprocessing and compare between different models.

Restaurant Recommendation System for Yelp Dataset **Project Leader**

Jan - Apr 2023

- Trained Neural Collaborative Filtering Model to predict the recommendations.
- The test accuracy is around 0.91.
- Wrote a technical report and presented results during an oral presentation.

Deep Reinforcement Learning for Car Racing **Project Leader**

Sep - Dec 2022

- Applied Proximal Policy Optimization to solve the OpenAI Gym CarRacing-v0 Environment.
- Reached a mean score of 735.16/1000.
- Wrote a report and discussed the results of Deep Q-learning network and Proximal Policy Optimization

OTHER EXPERIENCE

School of Data Science Technical Assistant

June 2023 - July 2024

Department of Computer Science

Feb - May 2023

Student Helper

- Authored questions and explanations on Data Structures and Algorithms.
- Developed a randomization feature for data in questions and established a uniform function API.

EF Academy, Summer Intern

Jun -Aug 2020

Sales and Marketing Assistant

- Analysed rival programs and promotion tactics in the mainland market to better understand the market.

SPECIAL Talks Team, Student Residence

Sep 2021-Feb 2022

- Moderated meetings to better connect guests and audiences online.

SKILLS

Language: English, Mandarin (Native)

Programming Language: Python, Matlab, R, SQL, Latex, HTML, CSS, SPSS, C++, Spark

Packages: Pytorch, TensorFlow, Pandas