

KAICHI XIE

Education:

University of California, Davis

M.S. in Computer Science

Sept 2023 - present

University of California, Davis

B.S. in Computer Science

Sept 2015 - June 2019

Research Experience:

UC Davis Computer Science & Genome Center

Graduate Student Researcher

Aug 2022 - present

- Implemented methodology for applying large language models to extract nutrition knowledge from biomedical literature.
- Built pipelines for training and evaluating Natural Language Processing models on biomedical text.

The Zhang Laboratory at UC Irvine

Research Assistant

July 2022 - Feb 2023

- Implemented the methodology and software development for graph machine learning algorithms to detect risk genes in human diseases.

Professional Experience:

The Hong Kong Polytechnic University

Research Assistant

June 2023 - Oct 2023

- Developed website for a research project that applied state-of-the-art Computer Vision model on segmentation with MRI scans to improve medical diagnosis.
- Implemented full-stack web development to create interactive UI features and APIs for requesting and post-processing model predictions.

Huawei Technologies Co., Ltd

Software Engineer

Mar 2020 - Nov 2020

- Developed a PaaS for Artificial Intelligence (AI) and Machine Learning (ML) models that automates pipelines for model management, deployments with cloud scalability, and customization for model retraining and evaluations.

Publications:

- Duan Z, Dai Y, Hwang A, Lee C, **Xie K**, Xiao C, et al. (2023) iHerd: an integrative *h*ierarchical graph *r*epresentation learning framework to quantify network changes and prioritize risk genes in *d*isease. PLoS Comput Biol 19(9): e1011444. <https://doi.org/10.1371/journal.pcbi.1011444>

Technical Skills:

Programming Languages: Python, Java, R, C, MySQL;

Technologies: Spring, Kubernetes, Docker, Linux, PyTorch, Tensorflow, Keras, Scikit-learn, Matplotlib, Numpy, Pandas, Kafka, Hadoop, Spark;