

Kangyu Xu

New York | Lighter.Xu@outlook.com | +1 9294741899 | LinkedIn | GitHub

Education

- **The Columbia University**
MS in Biostatistics (Data Science track)
Sept 2020 – May 2025
 - **The Chinese University of HongKong, Shenzhen**
BS in Data Science
Sept 2024 – May 2024
Coursework: Artificial Intelligence, Machine Learning, Optimization, Computer Vision, Stochastic Process
-

Professional Experience

Algorithm Engineer Intern

Hongpu Information Technology

Shanghai, China

June 2024 – Aug 2024

- Conducted experiments on Hongpu's knowledge graph algorithm, using ConvNext, ResNet, and Neo4j to build a robust knowledge graph.
- Developed a transistor error mapping pipeline with ConvNext Base model, reducing detection time to under 10 seconds and achieving >90% accuracy.
- Analyzed solar panel fault data, identifying high-frequency locations of common hidden cracks.

Data Analysis Intern (Macroeconomic Focus)

Oxbridge Economics

Hong Kong, China

Dec 2023 – Apr 2024

- Conducted salary data research for various industries across Hong Kong, Canada, and Singapore.
- Cleaned and analyzed data using Python's pandas and numpy libraries.

Back-end Developer Intern

Shenzhen Research Institute of Big Data

Shenzhen, China

Feb 2022 – Aug 2022

- Designed and developed a campus Applet, increasing student engagement by 30%.
- Built team bulletin and discussion boards using Django.
- Conducted API stress testing with Postman, optimizing backend performance.

Co-Founder & Operation Manager

Lumens Streaming Visual Studio

Shenzhen, China

Sep 2021 – Sep 2022

- Co-founded a studio providing photography and package design services, achieving monthly income of 4,000 RMB.
 - Coordinated team management and maintained client relationships.
-

Projects

- **Identify Brain Dysfunction in Alzheimer's Disease via Normative Modelling**

Supervisor: Prof. Lifang He, Lehigh University

Feb 2023 - Aug 2023

Developed normative models for disease state predictions, combining CVAE and Diffusion methods with PyTorch, improving prediction accuracy by 20%.

- **Using trajectory and machine learning to predict ICU mortality in fracture trauma surgery**

Supervisor: Prof. Guilan Kong, Peking University

Dec 2023 - Jun 2024

Modeled time-series data with logistic regression for prediction, leveraging trajectory models.

- **Database Management System**

2022

Built a Python-based DBMS with functionalities for table creation, file storage, and element selection.

- **Detection of AI-generated Images**

May 2023

Developed an image detection model with multi-branch architecture, incorporating Local Binary Pattern (LBP) features for enhanced accuracy.

- **Comparison of Object Detection Algorithms**

May 2023

Compared models (e.g., Faster RCNN, YOLOv5) for object detection, achieving best performance with YOLOv5, mAP50 of 0.739.

- **Stream Video Value Prediction Management**

Dec 2023

Built a LightGBM model to predict video performance, analyzing viewership metrics.

Additional Experience

- **Founder & Secretary General (2022-2024):** *Student Union, School of Data Science*

Established organization for academic and research discussion, growing it to over 500 members and organizing guest lectures.

Technologies

- **Languages:** Python, C++, Java, R, SQL, JavaScript, Django, CSS, HTML
- **Software/Editors:** Microsoft SQL Server, VS Code, PyCharm, Dock