

JINGXUAN LYU

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PROFILE

Data Science student at UC Berkeley with hands-on experience in machine learning, fraud detection, and large-scale data analysis. Skilled in building and evaluating ML models (CNNs, Transformers) on real-world datasets, with a focus on anomaly detection and model performance optimization.

EDUCATION

University of California, Berkeley — Berkeley, CA

Major: Data Science (Intended Computer Science)

Relevant Coursework: Data Structures (CS61B), Foundations of Data Science (Data C8), Multivariable Calculus (Math 53), Linear Algebra (Math 54)

RESEARCH

1. Predicting Fraudulent Transactions: A Comparative Study

Kaiwen Academy, 2025

Built and evaluated fraud detection models on large-scale transaction datasets, including Logistic Regression, Random Forest, and CNN-based models.

Performed feature engineering and model comparison to improve classification performance on imbalanced data

Conducted error analysis to identify fraud patterns and improve model robustness

2. Campus Weather Data Analysis for Short-Term Rainfall Forecasting

Analyzed 7+ months of high-frequency (5-min interval) multivariate weather data including temperature, humidity, wind, and rainfall

Performed data preprocessing including missing data handling, feature transformation, and normalization for time-series modeling

Supported a CNN-based rainfall forecasting pipeline by preparing and analyzing structured input data for model training

3. Credit Risk Modeling Research

Kaiwen Academy, 2024

Developed machine learning models for credit risk prediction using structured financial datasets

Applied statistical analysis and model evaluation techniques to compare predictive performance

EXPERIENCE

1. Data Analyst Intern, London Stock Exchange Group — Beijing, China

04/2024 – 08/2024

Processed and analyzed large-scale customer datasets using Python and Azure SQL to support risk analysis workflows

Built data pipelines for cleaning and transforming raw data, improving data reliability and processing efficiency

2. Software Developer, Chinese Academy of Sciences — Beijing, China

06/2024 – 07/2025

Designed an accessibility-focused calculator system for visually impaired users with optimized input logic

Tested software with students at the Beijing School for the Blind and iterated based on feedback

Skills

Programming: Python (advanced), Java, SQL

Machine Learning: scikit-learn, CNNs, Transformers, Model

Data: Pandas, NumPy, Data Analysis, Feature Engineering

AWARDS

USA Computing Olympiad (USACO), Gold Level

International Economics Olympiad (IEO), Individual Bronze

SDG Innovation Hackathon China Finals, 1st Prize