Ruilin Wu

Irvine, CA · ruiliw5@uci.edu · (503) 548-8226 · https://www.linkedin.com/in/ruilin-wu/

EDUCATION

University of California, Irvine (UCI) September 2022 - June 2026
B.S. Data Science, Minor in Informatics GPA: 3.8/4.0

SKILLS

Programming: SQL, Python, R, Machine Learning, Overleaf, Java, C++, Microsoft Suits

Language: English, Manderian, Cantonese

COURSEWORKS & PROJECT

Capstone Project: Delayed Antibiotics Administration January 2025 - Present
In Collaboration with Children's Hospital of Orange County(CHOC)
- Built an ETL data pipeline to ensure data integrity and completeness for further data analysis using patient antibiotic order records
- Estimated antibiotic delay durations and classified its serverity levels by building predictive models such as linear regression, random forest, and multinomial logistic regression model
- Ensured models practical feasibility by validating models using cross-validation and collaborating with clinical mentors (stakeholders)

Breast Cancer Recurrence Prediction
- Predicted breast cancer's recurrence risk by developing Bayesian Logistic Regression Model using clinical data
- Identified key factors that drive cancer recurrence and evaluated model performance with ROC curve and 10-fold cross-validation
- Achieved ~69.5% accuracy while maintaining model's practical feasibility for potential clinical use

CIFAR-10 Classification Project
- Built Machine Learning and Deep Learning models (KNN, logistic regression, FFNN, CNN) to classify 60K images
- Improved models' accuracy by 41.29% through PCA, SMOTE, normalization, and GridSearchCV

RESEARCH EXPERIENCE

CP-LEADS Fellow Program Cohort 3 January 2025 – Present
Career Pathways for Research in Learning and Education, Analytics and Data Science
- Analyzed how students interact with PapyrusAI (AI writing platform) by conducting data driven research
- Analyzed the correlation of students' user patterns of AI writing tool and their writing outcomes, evaluated how AI tools enhance students' writing effectiveness
- Applied statistical methods and data visualization to uncover insights into use behaviors in AI-assisted learning

Digital Learning Lab at UC Irvine July 2024 - Present
Research Assistant
- Conducted data collection for the Converse to Learn project, engaged over 60 children aged 4–8 in experimental studies
- Converted children's interactions into valuable data points from observations during children's interactions in experimental studies
- Ensured data accuracy by conducting data cleaning and used the data table for further research data analysis

ACTIVITIES

Associated Students of UC Irvine September 2022 - June 2023
Intern at Academic Resource Affair
- Curated Email newsletters and automated the Email distribution process
- Coordinated events attended by 100+ students, managing all logtistical details to ensure smooth execution