Xinyu Chen

github.com/cxy7988 · cxy7988.github.io

Education

Wenzhou-Kean University, CN Sep. 2022–Now

Exchanged in **Kean University, US** Aug. 2024-Mar. 2025

GPA 3.86/4 (major GPA: 3.96)

B.S. in Management(Business Analytic), **minor** in Computer Science

Courses: Java Programming(A), Operating System(A), Database(A), AR Development(A), Data Structure Linear Algebra(A), Statistic(A), Discrete Mathematics, Calculus

Work Experience

Proya Cosmetics Co., Ltd., Data Analyst Aug. 2025

- Developed Python web crawlers to monitor product updates and comments across social platforms, applying **NLP** models to track KOL campaigns and analyze consumer sentiment trends.
- Cleaned and annotated multi-channel sales datasets to model the relationship between marketing cost, brand reputation, and sales by **R**, providing actionable guidance for optimizing marketing expenditure allocation.

Firstack Limited Liability Company, Software Design Engineer Jun. 2025–Aug. 2025

- Engineered an oscilloscope software with **Qt**, streamlining hardware debugging and enabling real-time waveform visualization, cutting hardware debug time by 30%.
- Refactored **C/C++** legacy codebase by applying MVC design, redesigning data models and rendering widgets, and optimizing filtering logic for large datasets, resulting in a 20% performance gain.

Firstack Limited Liability Company, Financial Data Assistant Jun. 2023–Aug. 2023

- Optimized financial data workflows by integrating **SQL** to overcome Excel performance limitations, enabling efficient cleaning and validation of datasets—including $100M in fixed assets.
- Conducted data analysis on 200+ financial documents to ensure CSRC IPO compliance, helping shorten IPO reporting cycle by 2 weeks

Zhejiang University Research Project, Data Analyst Jul. 2022–Aug. 2022

- Conducted field interviews with 100+ rural households and leveraged Excel for data organization and visualization, enabling quantitative socioeconomic analysis for research.
- Co-authored a research report with university professors, providing data-driven policy recommendations that informed provincial government initiatives on rural development.

Projects and Activities

Campus Card & Utility Fee Query App Jun. 2025-Now

- Reverse-engineered OAuth2 authentication flow using **Fiddler** to reconstruct undocumented REST APIs securely, enabling authorized campus card and utility data access.
- Built **Flask** backend with RESTful API and **SQLite** database to store daily usage records and automate APNs push notifications for balance and utility alerts.
- Built iOS frontend in **Swift** featuring asynchronous data fetching, dynamic UI rendering, and secure email authentication—enhancing user experience and responsiveness.

Kaggle Competition - Predict the Introverts from the Extroverts Jul. 2025

- Built a three-stage Stacking framework combining **neural network** feature extraction with traditional algorithms like **Random Forest** and **XGBoost**
- Handled missing data using IterativeImputer, balanced classes via **SMOTE**, and tuned hyperparameters with GridSearchCV—achieving 97.17% validation accuracy.
- Delivered an end-to-end ML pipeline from data exploration to deployment, implementing an AUC-weighted ensemble strategy that improved model robustness across multiple prediction versions.

Virtual Reality Shopping Display System for Pop-up Stores Apr. 2025-May. 2025

- Built AR shopping system in **Unity** enabling users to scan physical labels and interact with 3D product models, reducing physical sample costs and improving demo efficiency at pop-up stores.

- Optimized animation rendering and user event triggers by **C#**, implementing dynamic button controls and reducing interaction latency by 35%.

xv6 Operating System Optimization Feb. 2025-May. 2025

- Implemented a user-level shutdown system call in xv6 using low-level I/O port instructions, reducing manual test overhead
- Designed and built a **Multi-Level Feedback** Queue scheduler with dynamic priority adjustment and aging policy, improving multitasking responsiveness and fairness by 60%.
- Developed a **Lazy Page Allocator** for on-demand physical page allocation, reducing unused memory footprint and increasing overall memory efficiency 20%.

Finance Research, *Do Repurchase increase the output of Innovation* Sep. 2023-May. 2024

- Developed automated Python web crawlers and utilized **SQL** for large-scale data collection, cleaning, and integration, reducing data preparation time from weeks to days.
- Built regression and PSM-DID models in **Stata** with high explanatory power (avg $R^2 = 0.91$), achieving statistically significant results ($p < 0.01$) across 100K+ firms.
- Discovered a significant positive relationship between share repurchases and patent output; co-authored a paper accepted for presentation at the Multinational Finance Society Conference (Finland, 2024).

KPMG ESG Case Study Competition, Qualify for the final Oct. 2023

- Led a 4-member team to design ESG strategies for Ant Group's rural finance expansion; directed data analysis and presentation efforts that helped qualify for the national finals.
- Processed and analyzed loan data from 10,000+ households in 100+ rural regions using **Snowflake**, and created interactive **Tableau** dashboards to present actionable insights in the final report.
- Built regression and k-means models in **KNIME** to assess the impact of ESG behaviors on loan profitability —helping reduce bad debt rate by 0.3% and narrow wealth gap index by 0.2%.

REWARDS

WKU International Study Scholarship - First Prize (Top10 in University) Jan. 2025
WKU College Scholarship - Third Prize (Top5 in Major) Nov. 2024
WorldQuant Quantitative Trading Challenge - Bronze Prize May. 2024
Bloomberg Global Stock Challenge - No.139 in Asia Dec. 2023
The 14th College Students' Career Planning Competition - Third Prize Nov. 2022