Xinran Liu

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Education

Reed College, **B.A. in Mathematics**, with Computer Science Minor   Expected May 2024
- Awards: Commendations for Academic Excellence 2021-22, 2022-23   *Portland, OR*
- Relevant Courses: Macro Economics; Micro Economics; Data Science; Statistical Learning; Algorithm & Data Structures; Probability; Economics and Law; Cryptography; Intro to C/C++.
- **Senior Thesis**: Year-long project on hardness of sampling from the output distribution of quantum circuits.

Experiences

IPO Department Intern | in the sector of Data Monitoring and Big Data SAAS   Jun – Aug 2023
China International Capital Corporation   *Beijing, China*
- Compiled Excel sheet with 5k datapoint to collect and analyze financial and operational statistics of 12 publicly-listed companies in the Big Data Platform sector;
- Advised client on prospectus crafting and identified selling points in both technical and financial aspects by studying client's software & hardware technologies and comparing key statistics with collected companies;
- Presented 3 comprehensive case studies on recent IPO rejections and withdrawals of similar companies;
- Facilitated over 10 due diligence interviews w/client senior execs in Tech, HR, etc. and followed up on ambiguous or unreconciled data. Produced over 80 pages minutes.

Research Assistant | Econ Summer Research: Trade, Migration, and Inequality   May – Nov 2022
Reed College Economics Department   *Portland, OR*
- Collected, wrangled, and analyzed 15k datapoint statistics from open resource to investigate the correlation between migration measures, tariff, and average wage in China from 1998 to 2021 using R and MS Excel;
- Generated two interactive geospatial heatmaps using R shiny and 10+ visualizations to demonstrate the correlations between provincial migration and other factors;
- Drew insights from the empirical analysis and adapted the key assumptions and parameters of the economic model of China's provincial migration in response to trade liberalization;
- Conducted comprehensive literature review in economic journals AEJ/AER, and wrote out data descriptions by investigating the application range and relevance of the commonly used data sources.

Relevant Projects

Multiplayer Matching Game | Independent Project   *Portland, OR*
- Designed an open matching game by learning HTML, CSS, and JavaScript in a two-week Web Application Hackathon;
- Implemented the game with multiplayer functionality through socket.io.

Kaggle Competition | Advanced Regression Technique in House Price Project Team   *Portland, OR*
- Conducted exploratory data analysis (EDA) using R on a 1040 x 79 house pricing dataset to understand its data structure;
- Applied appropriate data transformations, and evaluated the applicability of various models to the data type;
- Trained selected models using R on the training set and predict the housing price. Compared performances of forward / backward regression, Lasso regression and tree model under different evaluation metrics.

Relevant Skills

- **General**: Financial Analysis; Data Analysis & Visualizations; Quantitative Research; Risk Assessment.
- **Computer**: [Proficient] in R, MS Office; [Fluent] in Python, JavaScript; [Beginner] in C, C++.
- **Languages**: [Native] in Chinese; [Fluent] in English; [Beginner] in Japanese.

Activities

Cast Member& Soloist & Stage Director | Music Production | 2017 – Present
- Coordinated lighting, props, and sounding crews for musical performances; perform as soloist in seasonal concerts;
- Member of the Big Mouth Society at Portland, OR.

Freelance Photography | Independent | 2023 – Present
- Work as short term photographer for local musical performances.

Other Interests: Analog & Digital photography, Snowboarding, Bouldering, Biking, Red Cross First Aid Certified