YUE (JAMIE) YU

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PROFILE & SKILLS SUMMARY

Mathematics & **Statistics** student with strong programming (**Python, R, SQL**) and data-driven problem-solving skills. Passionate about financial markets and algorithmic trading, with hands-on experience developing quantitative predictive models and optimizing data workflows. Skilled in statistical modelling and market analysis. Eager to apply analytical expertise to the intersection of finance and technology, including **trading** and **strategies**.

EDUCATION

Honours Bachelor of Science (HBSc), University of Toronto   Sep 2021 – Present
- Majoring in **Mathematics & Its Applications Specialist (Probability/Statistics)** and **Economics** minor
- Relevant Coursework: Time Series Analysis, **Statistical ML** I & II (Cross-listed), **Statistical Computation** (Cross-listed), Methods of Data Analysis I & II, Applied Econometrics, **Game Theory**, Data Visualization

WORK/PROFESSIONAL EXPERIENCE

Hong Kong Applied Science and Technology Research Institute (ASTRI), Hong Kong
FinTech Future Leader Academy 2024 (Internship)   Jun 2024 – Aug 2024
- Selected for a competitive internship from over **3,000** applicants (**3%** acceptance rate)
- Developed **Python** scripts to **validate, classify**, **analyze**, and **visualize Suricata/Snort** rules files, delivering actionable insight that informed strategic decisions for the chief engineer via Matplotlib
- **Collaborated** with engineering teams **to automate** and optimize scalable **ETL** workflows of JSON files using UNIX tools (**jq**, **grep**, and **regex**), enhancing efficiency and reducing manual effort
- **Containerized** data environments using **Docker**, ensuring reproducible SQL querying and data testing

PROJECT HIGHLIGHTS

Algorithmic Trading: Computation & Optimization, Course and Independent Project   Sep 2024 – Present
- Developed **ML-driven models** using **Python** with boosting/ensemble algorithms, **probabilistic** models (hidden Markov model), and **regularization** techniques to optimize stock price forecasting accuracy
- Engineered ML pipelines, including data collection, cleaning, feature engineering, **hyperparameter tuning**, and **model iteration tracking** via Git, applying these skills in the QRT Data Challenge
- Researched and integrated economic and volatility indicators (TNX and VIX Index) to capture market trends and validated forecasting models on the stock simulator, achieving a **7.5% ROI** over **2** months

FIFA Video Games: Regression and Time Series Analysis, Personal Project   Jan 2024 – May 2024
- Utilized **R** for **multi-variable regression** and **time-series analysis (SARIMA)** with **hypothesis testing** and diagnostics to **forecast** player performance
- Designed database through ERDs and executed advanced **SQL** queries to clean and manipulate the datasets, ensuring **data integrity**
- Created engaging visualizations in R (ggplot2) and Tableau to communicate player rating trends, achieving **350+ views** and **18+** forks on **Kaggle**

ADDITIONAL EXPERIENCE

E-mentor, **University of Toronto**, Toronto, ON   Jun 2022 – Sep 2022
- Facilitated workshops and crafted newsletters via **MailChimp** to guide and mentor **30+** first-year students
- Leveraged statistics (open rate, engagement) to craft targeted content, increasing student interaction by **30%**

TECHINCAL SKILLS

Programming Languages/Tools: Python (Pandas, NumPy, scikit-learn, PyTorch), SQL, Tableau, Git, Docker, Excel