Tangzihan Xia

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PROFILE

Analytical Data Science undergrad with a 4.9/5.0 GPA and scholarship-backed excellence. Proven success in quantitative competitions—top 20% globally in IQC 2025—where I ideate, back-test and optimize trading alphas under live constraints. Skilled at translating complex data signals into actionable strat

EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE **Aug 2024 - May 2028**

Bachelor of Science (Hons) in Data Science and Analytics

- GPA: 4.9/5.0
- Awarded the Science and Technology Scholarship for academic excellence

AWARDS AND SCHOLARSHIP

- Science and Technology Scholarship conferred by the National University of Singapore (2024)

MOOTS/COMPETITIONS

IGNITE Agentic AI Hackathon 2025, Team Leader **Aug 2025 - Sep 2025**

- Identified inefficiencies in campus resale markets and reframed them into an AI-driven business concept with tangible prototype execution.
- Founded and led a 3-member team to build Kairos, an AI marketplace prototype using multi-agent AI to solve inefficient buyer–seller matching and reduce wasted second-hand items.
- Delivered core features including intelligent search and offer evaluation, reducing user friction by ~50% in testing while strengthening transparency and trust through explainable AI workflows.

Youth Speak Forum 2025 Ideathon, Team Leader **May 2025**

- Analysed and adapted Japan's SMART SHELF SYSTEM for the Singapore market; delivered a compelling pitch after 15 minutes of preparation.
- Led team to a 2nd place finish and secured a $200 cash prize.

International Quant Championship 2025, Contestant **Mar 2025 - May 2025**

- Ranked in top 20% of Stage 1 out of 500+ global participants.
- Qualified to Stage 2, iteratively submitting 12+ alpha strategies over 4 months.
- Constructed and back-tested models optimizing Sharpe ratio.
- Designed long–short equity strategies driven by option-implied volatility signals.
- Gained hands-on experience with statistical metrics, risk management, and agile strategy refinement.

NUS-Tiger Brokers Case Competition 2025, Team Leader **Mar 2025**

- Developed a strategic growth plan to increase young investor acquisition by 30% over 5 years, leveraging survey insights from 200+ students and market data analysis.
- Designed an in-app engagement framework integrating tiered investment levels, virtual currency (V.D.), and mentorship programs, projected to improve user retention by 25%.
- Outlined a 5-8 year roadmap for Tiger Brokers, detailing retention mechanisms and monetization models, with a forecasted SGD 5.3M revenue impact by 2035.

NUS Datathon 2025, Team Leader **Feb 2025**

- Led a team of 4 to compete in university-wide data science competition.
- Developed machine learning models to predict hierarchical company structures with 80% accuracy.
- Conducted comprehensive Exploratory Data Analysis (EDA) over course of 3 days, identifying key patterns and optimizing model inputs.

EXPERIENCE

NUS School Of Computing, CS1010S Teaching Team, Teaching Assistant **Aug 2025 - Present**

- Guided a cohort of 15 students through hands-on coding exercises during weekly tutorials, strengthening their grasp of core programming concepts across the semester.
- Reviewed assignments and flagged issues on CS1010S GitHub, streamlining peer grading and improving quality while developing practical GitHub collaboration skills.

NUS Physics Engagement Camp Organizing Committee, Vice Project Director **Nov 2024 - Jun 2025**

- Spearheaded two physics experiment demonstrations, engaging 100 + Junior College Students and 90+ secondary students in Physics lectures, lab tours and activities.
- Recruited, trained and managed a team of three in preparation of event.

NUS Pioneer House Open Day Organizing Committee 2025, Logistics Executive **Nov 2024 - Mar 2025**

- Established and maintained communications with 80+ potential sponsors.
- Negotiated bulk purchases and secured cost reductions, exceeding past-year expectations by 20%.

TECHNICAL SKILLS

- Python, R, Java, SQL
- Python libraries: Pandas, Scikit-learn and Matplotlib
- Power BI, Tableau

PUBLICATIONS

- Co-authored "A Categorization of the Global Fair-weather Electric Field According to Position and Weather Conditions'"; published at the 2024 International Conference on Ecological Protection and Environmental Chemistry (EPEC 2024); focused on geographic variation and chronic patterns

LANGUAGES

- English (Native)
- Chinese (Native)