

JOEL LO

+65 97921313 | joello@u.nus.edu | linkedin.com/in/joello | github.com/aerodromic | joelloliangze.com

EDUCATION

National University of Singapore (NUS) **Aug 2021 - May 2025**
Bachelor of Engineering in Industrial & Systems Engineering, Honours **GPA: 4.1 / 5.0**

- Double Major in Data Analytics
- Minor in Computer Science
- Programming Skills: Python, Java, JavaScript, VBA for Excel, MATLAB, R, MySQL, HTML5, CSS, React.js, Hugo, Git, Github
- Technical: Probability, Statistics, Engineering Economics, Data Visualisation, Data Analysis, Data Structures and Algorithms, Software Engineering, Operation Research, Microsoft Office Suite
- Certification in Fundamentals of Investments (CFI) - Wealth Management Institute

WORK EXPERIENCE

Quantitative Research Consultant, WorldQuant **Sep 2023 - Present**

- Developed over 14 quantitative trading algorithms on Brain Platform utilizing Fast Expression. Algorithms were designed to be sector-neutral, mitigating sector-specific risks, and incorporated diverse trading signals such as RSI, Volatility, and TTM Revenue.
- Formulated and rigorously backtested 1148 trading signals across US and China markets using a comprehensive dataset spanning 10 years. Utilized a database comprising 10,000+ datasets, including Ravenpack News Data and Price Volume Data, to validate algorithmic performance.
- Independently engineered a Python program to predict Ethereum price movements leveraging time series data, enhancing trading strategies.
- Achieved a Sharpe value of 2.10 with the most successful trading idea.

Summer Analyst Intern, Viettonkin Consulting **May 2023 - Aug 2023**

- Performed tailored Market Readiness Assistance for Foreign Direct Investors, for market-entry strategies into Asia-Pacific within Manufacturing, Food & Beverage, and Technology sectors.
- Initiated predictive analytics efforts to reshape pipeline strategies, increasing client acquisition by 233% & MoM following by 11x.
- Conducted FDI trend analysis to drive outreach strategies and acquired 11 partners by creating an automated CRM dashboard tool.

RESEARCH AND TEACHING EXPERIENCE

Teaching Assistant, National University of Singapore **Aug 2023 - Nov 2023**

- Instructed a class of 35 students on Industrial and Systems Engineering Principals, IE1111R, specifically mathematical modelling, data analytics and simulation, using VBA and Python.
- Collaborated with Dr Tan Chin Hon on creating E-Learning Resources on Engineering Economics.

Student Research Assistant, National University of Singapore **Jan 2023 - May 2023**

- Researched real-time applications of transformer-based computer vision models, implemented in Python, to detect housekeeping issues on 50+ construction sites in Singapore.

EXTRA CURRICULAR ACTIVITIES

Vice-President [Internal], NUS Industrial & Systems Engineering Club **Aug 2021 - Aug 2023**

- Mentored project directors and vice-project directors in medium-scale event planning of 12 events for 300+ members and ensured internal compliance with Singapore PDPA regulations and NUS policies.
- Hosted NUS ISE Business Analytics Case Competition with Micron which drew 200+ participants.

AWARDS

- Qualified for WorldQuant International Quant Finance Challenge 2023 Semi-Finals.
- Won Best Business Use Case in NTUC FutureX 2022 Regional Blockchain Hackathon.
- Awarded Apollo 11 (Advanced) for Orbital Summer 2022 Independent Software Development Project.