JESSICA JIA HUI TING

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY — **Atlanta, GA, United States**
Master of Science, Analytics — *Anticipated Graduation Date: 2025*

- Relevant Coursework: Data and Visual Analytics, Computing for Data Analytics, Operations Research for Supply Chains (Linear Programming and Optimization), Introduction to Analytics, Business Fundamentals

NATIONAL UNIVERSITY OF SINGAPORE — **Singapore**
Bachelor of Social Sciences, Economics (Honors) — *2015-2019*

- Grade Attained: 4.88/5.00 (Highest Distinction)
- Specialization: Quantitative Economics; Minor/Other Programs: Statistics, University Scholars Program
- Honors Thesis: "Dynamic Conditional Score Models: Forecasting Volatility of Exchange Rates"
- Awards: Faculty of Arts and Social Sciences Dean's Scholars List (2 semesters), Dean's List (4 semesters); University Scholars Program Honor Roll (2016), Senior Honor Roll (2017), and President's Honor Roll (2019)

WORK EXPERIENCE

MINISTRY OF TRADE AND INDUSTRY — **Singapore**
Senior Economist (Economic Issues and Insights/Growth Income and Productivity Unit) — *May 2020-Aug 2024*

Main Responsibilities:

- Drove data-intensive research projects involving data cleaning and statistical analysis in STATA and R, and collaborated with cross-agency policy teams to contextualize findings and deliver actionable insights to senior management
- Formulated economic parameters and scenarios for national long-term infrastructure planning workstreams
- Mentored interns in coding, econometric methodologies and policy contexts to deliver projects for policy prioritization
- Supported critical organizational processes including the 2023 Budget and Committee of Supply debates, review of training material for new officers, and the development of the Economist Service competency framework

Key Projects:

- Effect of university cohort expansions on wage premiums. Findings published in an article in the Economic Survey of Singapore and used to inform education policy
- Characterization of the R&D and innovation landscape using administrative and novel survey data, and the relationship between public and business R&D spending. Findings shared with senior management to understand R&D dynamics
- Contribution of intangible assets and other drivers to productivity growth using shift-share and growth accounting methods. Findings were published in articles in the Economic Survey of Singapore
- Tableau dashboard tracking key labor market indicators during the COVID-19 pandemic for policy calibration

PROJECTS

Data-Driven Approach to Music Clustering *(group project for Data and Visual Analytics class)*

- Collected 220k tracks using Spotify API including artist, album, and track features, and applied stratified sampling and feature engineering (e.g., winsorization, PCA) to ensure balanced genre representation and improved data quality
- Implemented HDBSCAN and MBD-BIRCH clustering algorithms on the 128k track sample with parameter tuning
- Developed an interactive dashboard to visualize and compare hierarchical clusters and track features

Water Distribution Network Monitoring

- Optimized sensor placement in a water distribution network (811 sensors, 1123 pipes) for pipe burst detection
- Formulated integer programming models in Python, leveraging Gurobi Solver to handle complex constraints efficiently

PROFESSIONAL DEVELOPMENT

- ***Python Programming and Unstructured Text Analytics*** (Civil Service College Singapore) — *Feb 2023*
- ***Machine Learning and Big Data CEP, ASSA Annual Meeting*** (American Economic Association) — *Jan 2023*
- ***Using Text as Data: Methods and Applications*** (Barcelona School of Economics) — *Jul 2022*
- ***Audited PhD Empirical Research Project Course*** (Singapore Management University) — *Jan 2022-Apr 2022*

SKILLS

Programming Languages & Software: Python, SQL, STATA, R, Tableau, exposure to JavaScript & D3 through coursework
Cloud & Big Data: Exposure to AWS, GCP, PySpark, Apache Spark, Databricks, Azure Machine Learning through coursework
Analytical Skills: Causal Inference (Survival Analysis, Difference-in-Differences, Matching Methods, Regression Discontinuity Design, Synthetic Controls), Machine Learning (Regression, Classification, Clustering, Random Forest), Time Series Forecasting & Volatility Modelling, Optimization, Text Analytics