Yunzhao (Daniel) Li

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EDUCATION

Western University **London, ON**
Master of Data Analytics Sept 2025 – Now
University of Toronto | Annual GPA: 3.7/4.0 **Mississauga, ON**
Honours Bachelor of Science in Statistics Specialist and Minor in Mathematics Sept 2020 – Aug 2025
Certifications: CFA Level I Candidate, FRM Candidate; **Language**: Proficient in English and Mandarin
Technical Skills: Proficient in Python, R, SQL, SAS, Java, LaTeX, and MS Office365 (Word, Excel and PowerPoint), Bloomberg

WORK EXPERIENCE

Top Knowledge Co. **Toronto, ON**
Business Analyst (Internship) June 2025 – Aug 2025

- Conducted in-depth data analysis using **VBA** to categorize customer behaviors and needs, enabling the design and implementation of targeted marketing strategies that successfully increased customer retention rates by 17%.
- Designed and maintained **dashboards** that streamlined customer reports and enhanced report accuracy, thereby accelerating compliance adaptation and helping management decision-making, resulting in a 15% boost in operational effectiveness.
- Spearheaded the development of a robust **data integration framework**, consolidating multiple data sources into a unified SQL database to enhance data accessibility and reliability across business units.

AstraZeneca **Shanghai, CN**
Assistant, Data Department (Internship) Nov 2022 – Oct 2023

- Analyzed market dynamics and competitor products using **Python/SQL/Excel**; built evidence-based visuals (**Tableau/Power BI**) for seminar briefings that cut prep time and improved forecast accuracy by 12%.
- Processed and reconciled large datasets in Excel (**pivot tables, LOOKUPs, VBA**); delivered weekly performance reports to leadership and partnered cross-functionally to produce concise explainer videos, beating target KPIs.
- Maintained data pipelines and handled ETL exceptions (**data-quality checks, SQL validations**); reduced data discrepancies by 28% and supported analytical models that cut customer-issue resolution time by 18%, and produced daily P&L and risk reports; launched dashboards that surfaced anomalies in real time.
- Built and back-tested factor/alpha models in Python (**pandas, NumPy**); improved portfolio Sharpe by +0.25 and trimmed max drawdown by 10% under out-of-sample tests, while automated ingestion/cleaning of market data (e.g., **Bloomberg/Quandl**); reduced research runtime by 40% and expanded universe coverage from 300 to 470 tickers.

PROJECT & LEADERSHIP

LexiGO – Language Learning Desktop App July 2025 – Sept 2025

- Built a Java Swing application with Clean Architecture, enabling adaptive vocabulary learning via flashcards, spaced repetition, and gamified features (streaks, badges, leaderboards).
- Developed core modules and analytics dashboards with JSON-based persistence, ensuring robust, maintainable code through unit and integration testing, while collaborating in an Agile team using Git/GitHub.

PCA on Credit Default Swap Term Structures Mar 2025 – Apr 2025

- Modeled CDS curve risk factors via PCA across 10 maturities for 600+ firms; first three components (level, slope, curvature) explained ~96% of cross-maturity variance; translated factor shocks into risk metrics by re-pricing curves under ±2σ stresses; quantified impacts on 99% VaR/Expected Shortfall and highlighted top-decile names by stress beta across sectors/ratings.
- Built R tooling for loadings/score diagnostics, biplots, and clustering to flag curve anomalies/illiquidity; stability testing on rolling windows yielded out-of-sample $R^2 \approx 0.88$, with documentation aligned to model-risk governance.

Sparse Discriminant Analysis with LASSO for High-Dimensional Classification Mar 2025 – Apr 2025

- Replicated and evaluated a published Sparse Discriminant Analysis framework that applies LASSO-based feature selection, and machine learning models, demonstrating its ability to extract the most informative signals from large, complex datasets.
- Designed and executed simulation studies in R to benchmark SDA against standard classification, such as bayes classifier, showing stronger predictive accuracy and robustness under high-dimensional and sparse data conditions.

Logistic Map and Chaotic Dynamics Nov 2024 – Dec 2024

- Explored the dynamics of nonlinear systems by analyzing the transition from stability to chaos in the logistic map, applying bifurcation analysis, period-doubling, and Feigenbaum constants to quantify regime shifts.
- Built Python simulations to generate bifurcation diagrams and cobweb plots, visualizing the onset of chaos and drawing parallels to risk modeling, tail events, and systemic instability in financial systems.

CSSA of University of Toronto **Mississauga, ON**
Academic and Events Coordinator, Academic & Events Departments Sept 2022 – June 2025

- Actively contributed to the CSSA Academic Department at UTM, where I introduced the statistics program and shared experiences at orientation events; provided ongoing course selection guidance and answered inquiries for new students.
- Collaborated with the Events Department to plan and execute the Dragon Boat Festival activities, including coordinating with vendors for dragon boat rentals and ensuring smooth event operations.