Liu Jason Tan

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Experience

Morgan Stanley *New York, NY*
Analyst, Operational Risk Analytics *2022 – Present*

- **Collaborated** with global cross-functional risk management teams to facilitate **decision-making**, **mitigate risk** exposure, and **prevent fraud**, potentially **safeguarding billions of dollars**
- Developed **end-to-end models**, spanning from conceptualization to production employing **R** and **Python** to **automate** manual processes, resulting in over 50% reduction in manual workload
- Applied **statistical techniques** (**regression** and **simulations**) to pass regulatory examinations, determining optimal thresholds, creating projections, and evaluating potential losses
- **Analyzed a substantial volume of data** to identify inconsistencies in risk incident tagging, enhancing quality assurance, and fortifying the framework for risk identification and recording

Education

Master of Applied Data Science GPA: **4.00** /4.00
University of Michigan – Ann Arbor *Ann Arbor, Michigan*
Bachelor of Science in Information Systems GPA: **3.64** /4.00
Stony Brook University *Stony Brook, New York*

Skills

- Experienced in **R**, **SQL**, and **Python** (**Numpy**, **Pandas**, Keras, TensorFlow, SciKit Learn, and **NLTK**)
- Proficient in supervised and unsupervised **machine learning algorithms** such as **deep neural networks**, **classification**, **clustering,** dimensionality reduction, and **regression**
- Extensive experience running millions of **Monte Carlo simulations** and thousands of **regressions** for in-depth analysis, anomaly detection, **predictive modeling,** forecasting, and allocation of capital
- Applied **Natural Language Processing** (NLP) methods such as **Word2Vec**, Part-Of-Speech Tagging, LSTM**,** and **BERT** for sentiment analysis
- Utilized both **quantitative** methods and **business insights** to generate results and improve risk management processes by **translating business needs into analytical frameworks**

Recent Project *(More on my website)*

Social Monitoring Dashboard

- Developed an **interactive dashboard** enabling users and companies to proactively monitor tweets for **reputation management** by leveraging the Twitter **API** to collect and analyze data
- Implemented a **sentiment analysis** module utilizing a pre-trained **BERT** to accurately determine tweet sentiments, contributing to more **informed decision-making**
- Employed **Non-Negative Matrix Factorization** to group tweets into distinct **clusters** based on topics to allow for efficient content organization and **trend and pattern analysis**