Nolan Tang

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Open to relocation!

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EDUCATION

WASHINGTON UNIVERSITY IN ST LOUIS, OLIN BUSINESS SCHOOL, St. Louis, MO **December 2024**
Master of Science in Business Analytics - Supply Chain

Relevant Courses: **R** and Statistics Foundation, Database Design and **SQL**, Big Data and Cloud Computing, Machine Learning Tools for Prediction of Business Outcomes, **A/B Testing** in Business and Social Science, **Data Visualization** for Business Insights with **Tableau**

FUDAN UNIVERSITY, Shanghai, China **June 2023**
Bachelor of Economics

Awards Fudan Alumni Association Scholarship
Relevant Courses: Money and Banking, Asset Pricing, Accounting II

EXPERIENCE

VoiceBotics AI, Remote **Mar 2025 - May 2025**
AI Marketing Automation Intern

- **Real-time Dashboard:** Developed a real-time business intelligence dashboard in **Tableau** to visualize local market trends, automated data collection via web scraping, optimized **SQL** databases for efficient querying, and engineered a scalable data pipeline using **Kafka** to ensure seamless data flow.
- **Data Management & Analysis:** Applied **TensorFlow, Keras** and other deep learning methods in building statistic models with Python for data prediction targeted on toB sales growth, generating actionable insights for segment marketing.
- **Custom Product Management:** Developed MVP of toB advertising software with React to enhance AI-driven functionalities and automation capabilities, enlarging the potential client base to estimated **130%** and contributing to revenue growth.

Premier Strategy Consulting, St. Louis, MO **June 2024 - August 2024**
Data Scientist & Marketing Intern

- **Product Development(gpt-4o):** Deducted prompt engineering to develop the MVP of an **end-to-end** data analysis product with **LongChain**. Independently complete 1st stage **product testing** by filtering suitable public **e-commerce** industry datasets and recording **BRD** for product-related problems.
- **Marketing Department(Content Marketing):** Actively forming **connection network** with potential company clients through effective communication on **3+** STL World Cup Competitions and updated LinkedIn content on a weekly basis. Developed **2-3** implementable update strategies, including both graphic updates and video format, achieving the result that each post achieved over **100** impressions.

PROJECTS/COMPETITIONS

Learning Agency Lab & Vanderbilt University - Team Leader(Bronze Medal)

- **Ensemble Modeling (Python):** Specify and address the industry challenge of **evaluation in AI-automated** grading tools in education through developing an ensemble model using SpaCy embeddings and TF-IDF vectorization. Enhancing the model's reliability in assessing diverse student-written content by a 15% improvement in classification accuracy**.**
- **Machine Learning Optimization (LightGBM & CatBoost):** Applied hyperparameter tuning using Hyperopt, optimizing LightGBM and CatBoost models for AI-generated text detection. Enhanced model performance by refining learning rates and thresholds, achieving a cross-validation AUC score of 0.9983, representing a 10% increase over baseline models.
- **Model Improvement (TF-IDF):** Engineered custom Python functions to compute variance, mean, and standard deviation for sparse matrices generated by TF-IDF, leading to a 12% increase in interpretability and a 7% improvement in classification accuracy. These improvements ensured more reliable insights and enhanced the model's predictive power.

Research Project: Automation's Impact on Aging & Innovation

- **Data Analysis & Modeling:** Conducted regression and **Difference-in-Differences (DID)** analysis with **STATA** on industry-level datasets (IFR robotics, China Statistical Yearbook) to quantify automation's mitigating effect on aging-related labor scarcity, revealing a **96%** innovation boost in automated sectors. Applied **SQL** for data aggregation and **Excel/Python** for statistical modeling.
- **Policy-Relevant Insights:** Identified how automation offsets aging's negative impact on innovation (e.g., **-34.3%** patent decline without automation), providing actionable parallels for housing labor shortages and operational efficiency in affordable housing programs.
- **Visualization & Reporting:** Designed **Tableau** dashboards to visualize automation trends and patent growth, supporting data-driven decision-making. Streamlined reporting with **robustness checks** (e.g., composite innovation indices) to ensure data reliability—mirroring HDC's need for accurate arrears/vacancy tracking.