YIHUI LIU

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EDUCATION

Graduate School of Arts and Sciences, Georgetown University *MSc in Data Science and Analytics* **Washington, DC**
- **Current GPA:** 4.0/4.0 Aug 2021 - May 2023

Hunan University
Bachelor of Engineering in Material Science and Engineering **Hunan, China**
- **GPA:** 3.32/4.00 Sep 2017 - June 2021

INTERNSHIP EXPERIENCE

Alibaba Group **Beijing, China**
Business Analyst Intern Dec 2020 - Feb 2021
- Conducted E-commerce analysis on electronic devices brands, utilized NLP to analyze and compare 10+ competitive brands' user reviews across different social media platforms; spotted potential problems within the products and delivered sales improvement solutions
- Researched on smart home devices industry, analyzed and compared different business models to spot product differences, observed a decreasing trend in sales for smart home devices, and discovered industry pinpoints including incompatibility between different systems
- Preprocessed data using SQL, and composed analysis report to deliver constructive solutions to market operation strategy

Business Analysis Tool based on Python (New York University) **Remote, USA**
Research Intern Apr 2020 - June 2020
- Applied statistical model and mathematical algorithms to 8 different economic stock prices to calculate some linear and compounded returns and perform normality tests, variance ratio test
- Utilized multiple machine learning models and data analytics methods including Random Forest Model, Logistic Regression Model and Naive Bayes Model to analyze historical price and forecast further trend
- Accomplished time series analysis on historical stock volume, prices and returns, select stocks and created a portfolio based on historical stock performances, and predicted the future profitability

PROJECTS

Disaster Analysis Aug - Dec 2021
- Used Python and R to conduct data analysis, make visualizations and discovered key findings about correlations between human activities and natural disasters, and called for environment awareness
- Performed multiple data analytic methods including clustering, ARM, decision tree, Naive Bayes, and SVM to analyze the implications behind climate monitoring measures, and to draw useful conclusions about pre-and-post disaster assistances
- Utilized API, CountVectorizer, TF-IDF, and text processing methods to generate, clean, and analyze public opinions about disasters, and people's concerns towards post-disaster assistance.
- Generate both technical and non-technical report, and built portfolio through HTML and CSS to share findings

CSBS Data Analytics Competition: The Role of Community Banks During the Pandemic Jan 2022 - Present
- Create data analytic model mainly through statistical learning to develop hypothesis about the role community bank played during the pandemic; Optimize and test model about community bank's role in pandemic and use the result to draw data-driven, business-related insights about the topic
- Utilize Business Intelligence tool to present the insights and deliver presentation to CSBS
- Currently 1 of the 8 finalists in the national competition

Mini-Symposium on Data Analytics: Analysis of U.S. Bank Performance During the Pandemic [Poster Presentation] May 2022

LEADERSHIP EXPERIENCE

College Student Innovation and Entrepreneurship Competition **Hunan, China**
Team Leader May 2018
- Led a team of 5 people on a project explored outside chemical and industrial market and its target customers
- Presided and assigned research topics to team members regarding analysis on business opportunities of palladium catalyst and led discussions about structured marketing strategies

PUBLICATIONS

Yihui Liu, Zixuan Sun, etc., Sentiment Analysis of Comments on the 2019 Australian Federal Election Based on Machine Learning; Paper ID: BM21-605-A; 2021 4th International Conference on Computers in Management and Business (ICCMB2021) Singapore, 01/30-02/01 2021 http://www.iccmb.org/

Jingchun Guo, Hui Wang, Fei Xue, Dan Yu, Li Zhang, Shilong Jiao, **Yihui Liu**, etc. Tunable Synthesis of Multiply Twinned Intermetallic Pd3Pb Nanowire Networks toward Efficient N2 to NH3 Conversion. Journal of Materials Chemistry A, 08/2019

SKILLS

- **Technical Skills:** Python, R, SQL, MATLAB, Tableau, HTML, CSS, Microsoft Office (Word, Excel, PowerPoint)
- **Languages:** Chinese (Native), English (Proficient), German (Intermediate)