# XINYUE ZHANG

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## SUMMARY

Enthusiastic and solution-driven data scientist with over 4 years of experience in quantitative analytics, predictive modeling and machine learning. Adept at cross-functional collaboration, having worked closely with engineering and IT teams to streamline processes. Proficient in Python, SQL, Tableau, and A/B testing, with a passion for turning complex datasets into actionable insights for technical and non-technical stakeholders. Seeking opportunities to leverage my analytical expertise in dynamic, growth-focused organizations.

## SKILLS

- **Programming Languages**: Python (numpy, pandas, scikit-learn, Jupyter Notebook), SQL, MATLAB, R
- **Machine Learning**: Regression models, KNN, random forest, deep learning (TensorFlow), time series forecasting
- **Data Visualization**: Python (matplotlib, seaborn), Tableau, Excel
- **Tools & Methods**: Databricks, BigQuery, Snowflake, A/B testing, Agile/Scrum, version control (Git), Google Analytics

## PROFESSIONAL EXPERIENCE

**Bank of America** Charlotte, NC

*Senior Quantitative Developer (AVP)* Nov. 2021 – Present

- Designed, built and integrated predictive regression models in Python, enhancing liquidity risk management and improving market prediction accuracy by 10%; facilitated model deployment to Prod in conjunction with engineering teams
- Developed and deployed streamlined Python scripts for time series data backtesting, leading to 50% time saving in gap analysis
- Conducted comprehensive scenario analysis and CCAR stress testing, offering actionable insights into potential risk trajectories
- Partnered with traders and IT for optimizing batch/real-time data integration, fostering enhanced decision-making
- Mentored junior team members, accelerating project completion by 30%

**State Street Corporation** Burlington, MA

*Business Analyst in Charles River Development* May 2019 – Oct. 2021

- Collaborated closely with product managers and developers from product conception to launch in an Agile/ Scrum environment
- Developed SQL queries for robust data extraction and conducted exploratory testing to ensure product functionality and resilience
- Researched and resolved 100+ client enquiries, leading to new business opportunities and a 25% boost in client satisfaction scores

**University of Michigan Transportation Research Institute** Ann Arbor, MI

*Research Assistant* Apr. 2019 – May 2019

- Independently collected, cleaned and analyzed transportation data of 2014 to 2016 in Python, comprising 4,000+ accident records
- Utilized and implemented machine learning models including logistic regression and random forest for predictive analytics on accident severity, realizing an accuracy at 0.80; presented findings and key insights (60 pages+) to clients directly

## PROJECT EXPERIENCE

**Predictive Analysis on Bulldozer Prices**

- Leveraged random forest model in Python for time series analysis on 400,000+ records to forecast bulldozer prices, identifying key factors influencing pricing trends. Github

**Big Mart Sales Prediction**

- Optimized supply chain logistics through sales forecasting using XGBoost Regressor based on over 8,000 sale records. Github

**Movie Recommendation System**

- Designed content-based and collaborative filtering movie recommendation systems using almost 10,000 movies to make recommendations based on users' preferences. Github

**Mobile Games A/B Testing with Cookie Cats**

- Used Bootstrapping to create 500 samples from dataset and analyzed A/B test results to guide game app redesigns. Github

## EDUCATION

**University of Michigan** Ann Arbor, MI

*M.S.* in Quantitative Finance and Risk Management GPA:3.8/4.0 Sept. 2017 – Dec. 2018

**Central University of Finance and Economics** Beijing, China

*B.S.* in Economics (Mathematical Economics and Finance) GPA:3.9/4.0 Sept. 2013 – June 2017