

ZELIN DING

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EDUCATION

Expected 12/23	NEW YORK UNIVERSITY The Courant Institute of Mathematical Sciences M.S. in Mathematics in Finance	New York, NY
08/18 - 05/22	PENN STATE UNIVERSITY Dual B.S. in Computational Statistic and Applied Mathematics	University Park, PA

Coursework: object-oriented programming (Java), Black-Scholes, decision trees, linear regression, stochastic processes, Monte Carlo method, data-driven modeling

Honors/Awards: Dean's List for 7 semesters

EXPERIENCE

06/21 - 07/21	CHINA SECURITIES Investment Banking Intern	Beijing, China
03/21 - 06/21	HUAXI SECURITIES Industry Research Intern	Shanghai, China

Conducted enterprise risk assessments for clients of Nanjing Metro from qualitative and quantitative perspectives

Performed due diligence to obtain comprehensive understanding of Nanjing Metro's capital structure and credit risk

Calculated credit rating scores with China Securities' model, using financial statistics such as quick and working capital ratios for client companies

Developed KMV rating model, calibrated by historical default data of Chinese corporate bonds over prior 5-year period; estimated probability of defaults and mapped to ratings buckets

Monitored Chinese electronics industry business and financial news; produced daily reports by quantifying effect of industry events on financial markets

Wrote reports after completing in-depth analysis of semiconductor and electronics industry, including deep dive into its current state and future trends

Led company and industry analysis for Chinese GPU sector; compared profitability and market shares of leading companies; generated graphs to visualize research conclusions

PROJECT

09/21 - 11/21	MORGAN STANLEY Quantitative Research (Python)	New York, NY (remote)
	Analyzed SPY and risk-on/risk-off US sector ETFs' correlations and dynamic co-movements using Pearson and Spearman correlations and ML algorithms (linear regression, cluster analysis)	
	Evaluated risk attributes of selected ETFs by studying their historical volatility	
	Designed quantitative trading strategy that used risk attributes of each selected ETF by allocating to different sectors under various market scenarios and volatile regimes	
	Backtested strategy over 20 years of data; achieved 7.2% annualized return and 0.4 Sharpe ratio, benchmarked against SPY	

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python (Numpy, Pandas, Statsmodels, Sklearn, Tensorflow), R, Java, C++

Languages: English (fluent), Mandarin (native)

Interests: Honor of Kings multiplayer online battle arena game (ranked top 10 of 100M contestants in Season 11)