

## JIALEI LAN (JAY)

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### EDUCATION

#### MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT SLOAN)

Cambridge, MA

*Candidate for Master of Finance, February 2026*

2024 – Present

- Anticipated Concentrations: Corporate Finance & Capital Markets
- Anticipated Coursework: Corporate Finance; Financial Markets; Advanced Data Analytics and Machine Learning in Finance; Financial Mathematics; Financial Data Science and Computing; Investment Management Club

#### BOSTON UNIVERSITY

Boston, MA

*Bachelor of Science in Business Administration: Finance, summa cum laude*

2019 – 2024

*Bachelor of Arts in Computer Science, summa cum laude*

- **Dean's List (All Semesters); Cumulative GPA: 3.95/4.0**
- Relevant Coursework: Investment Analysis and Portfolio Management; Corporate Financial Management; Futures, Options, and Financial Risk Management; Applied Programming for Investments

### EXPERIENCE

#### ABCDE FOREX CAPITAL

Singapore, Singapore

*Algorithmic trading research group with focus on forex CFDs*

2023 – 2024

##### **Co-Founder and Research Lead**

- Developed a leveraged automated trading algorithm deployed on foreign exchange markets through MetaTrader using MQL4 that achieved an ROI of at least 20% monthly in the year 2023 with a maximum drawdown of 30%
- Performed over 5,000 backtests for cost-averaging strategies by leveraging on 15+ years of historical data of major forex pairs and optimized algorithm parameters including exponent, pip-step, take profit, and risk amount
- Managed a team of 5 in daily operations through task delegation and bi-weekly team meetings to monitor the impact of macroeconomic events on the algorithm's performance

#### AMAZON MOVIE REVIEWS: MACHINE LEARNING COMPETITION

Boston, MA

##### **Top 10 Finalist**

Fall 2023

- Constructed a supervised model comparing the use of logistic regression, random forest, and LightGBM regressor to predict Amazon movie review scores reaping an accuracy of 0.74 and an RMSE of 0.76
- Performed data processing on a dataset with 130,000 rows through pandas and NumPy, and feature engineering through NLP, TF-IDF, sentiment analysis, Flesch-Kincaid score, etc., to create over 150,000 new feature columns
- Achieved a 10<sup>th</sup> place finish out of 170 participants

#### BOSTON UNIVERSITY FINANCE AND INVESTMENT CLUB

Boston, MA

##### **Quant Developer**

2022 – 2023

- Led a team of 6 in researching technical trading strategies in equities and forex, concentrating on Grid Trading with well-defined entries and exits based on breakeven analysis to be ran on a \$10,000 student-managed account
- Conducted over 10,000 trials of Monte Carlo simulations with geometric Brownian motion on Python to predict the most likely stock price path of Coca-Cola

##### **Junior Analyst**

2019 – 2022

- Awarded Section's Best Junior Analyst in 2019 for the student managed investment fund (\$1.1m AUM)
- Prepared detailed financial analysis of Federated Investors Inc. (NASDAQ: FII), focusing on the company's revenue generation model and key financial metrics, including ROE, profit margins, and AUM growth
- Performed comparable company analysis and applied various valuation methods such as EV/EBITDA, P/E, and P/BV multiples to derive an implied target price of \$30.12 and a potential upside of 14%
- Researched and presented industry trends, explaining an 8% expected CAGR for retirement assets and 16% increase in FII's total AUM in support of a buy recommendation

#### SOLE-MATE: FINANCIAL STRATEGY & VALUATION PROJECT

Boston, MA

##### **Project Leader**

Fall 2021

- Led a team of 10 in developing a 150-page business plan for an automated shoe cleaner and projected a WACC of 17.4%, IRR of 39.2%, and NPV of \$1.7m using financial models, specifically DCF and comparable company analysis
- Forecasted 5-year pro-forma financial statements, including income statements, balance sheets, and statements of cash flows, to present a clear financial overview to investors in support of a \$1.1m initial startup cost
- Developed pricing strategies based on thorough market research and demand curve analysis to optimize revenue growth, leading to a year 2 EBIT breakeven and an investment payback period of 4.18 years
- Performed financial risk analysis through 10,000 simulations of changes in awareness and direct material costs and its effect on NPV, and sensitivity analyses on 17 variables such as WACC, tax rate, and terminal value

### ADDITIONAL INFORMATION

**Software:** Microsoft Office (Word, PowerPoint, Excel); Python; Java; JavaScript; SQL; MySQL; Ocaml; C; MQL4

**Languages:** English (native); Mandarin Chinese (fluent)

**Interests:** Piano (Trinity ATCL Diploma in Performance); Music; Basketball; Golf