ZACHARY JONES

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EDUCATION

STEVENS INSTITUTE OF TECHNOLOGY Hoboken, NJ
Bachelor of Science May 2024
Major in Quantitative Finance; Concentration in Finance and Economics
Cumulative GPA: 3.24/4.0; Dean's List 2020 – 2024
Coursework: Corporate Finance, Market Microstructure and Trading, Time Series Analysis, Financial Engineering

WORK EXPERIENCE

UNITED PARCEL SERVICE Parsippany, NJ
Technician II May 2025 – Present
- Developed a Python script to audit 150+ machines and automatically generate Excel pivot tables, reducing audit time from 5 hours to 3 minutes and eliminating manual errors
- Automated core operating system deployment tasks with custom scripting, cutting configuration time by over 88% while improving consistency and eliminating manual errors
- Mapped environment data in Excel with pivot tables to identify team-owned assets, enhancing audit accuracy
- Partnered with IT and operations teams to streamline internal audit processes and optimize resource tracking

HAIR LUXE Cresskill, NJ
Financial Operations Analyst Apr 2020 – May 2025
- Reduced expenses by 15% through monthly budget analysis and proactive identification of cost-saving opportunities
- Built dynamic financial models in Excel and VBA to support forecasting, capital planning, and scenario analysis
- Automated recurring reporting workflows, cutting manual input errors and saving over 10 hours per month
- Evaluated investment opportunities, performing ROI assessments on technology upgrades and services

RELEVANT PROJECTS

REGEN – QUANTITATIVE SPORTS BETTING ENGINE Aug 2024
- Compiled a fully automated Python system (2,300+ lines) that scrapes live odds, stores bet data in SQL, and computes fair market prices by devigging (removing bookmaker margin) Pinnacle lines
- Identified +EV opportunities by comparing market inefficiencies across sportsbooks and automated real-time alerts via custom Discord integration
- Applied statistical modeling to multiple bet types (moneylines, spreads, totals, player props) and exploited mispriced markets
- Achieved over 50% ROI across 500+ tracked bets; account now limited on BetMGM due to sustained profitability

FAMA–FRENCH ASSET PRICING MODELS May 2023
- Extended the Fama-French 3-Factor Model by incorporating momentum, liquidity, sector, and PCA-based factors to assess improvements in explaining portfolio excess returns
- Conducted 101 portfolio regressions using OLS, GRS testing, and PCA to evaluate explanatory power and factor significance
- Applied backward stepwise selection to identify the most statistically significant factor combinations, revealing that simpler models often outperformed complex ones
- Discovered that no model consistently outperformed the Fama-French 3-Factor baseline, highlighting the importance of portfolio design and model simplicity

CONSUMER VOLATILITY FORECAST Dec 2023
- Forecasted 1-year volatility for Consumer Staples (XLP) and Discretionary (XLY) ETFs using multiple linear regressions and random forest models trained on 6 years of stock data
- Engineered rolling volatility features from log returns and applied lag-based predictors across ETFs (SPY, XLP, and XLY) to optimize model performance and interpretability
- Demonstrated that simple linear models outperformed complex random forests in out-of-sample accuracy, achieving a minimum MSE of 0.0000393 and illustrating that greater model complexity does not guarantee better performance

BANK OF AMERICA VALUATION PITCH Dec 2022

- Designed a two-stage Dividend Discount Model (DDM) to value Bank of America, forecasting intrinsic value based on forward dividend growth and terminal yield assumptions
- Selected DDM over DCF due to the nature of banking cash flows, which rely less on tangible assets and are poorly captured by capex/depreciation-based models
- Integrated macroeconomic catalysts such as rising interest rates and low-yield deposit strategies, reinforcing a buy thesis with ~15% projected upside
- Benchmarked valuation against peers (JPM, WFC, MS) and analyzed key metrics including P/E, PEG, CAPE, and loan-to-deposit ratio to assess relative value and risk exposure

SPORTS BETTING BANKROLL SIMULATOR Apr 2025

- Created a Monte Carlo simulator in Excel/VBA to model bankroll volatility across 10,000+ simulated bets per run based on edge, bet size, and odds inputs
- Visualized outcome distributions and bankroll curves to quantify downside risk, variance, and long-run expected value for various betting strategies
- Implemented staking logic for Kelly Criterion and fixed-percentage systems, enabling side-by-side comparisons of expected growth and drawdown risk
- Supported rapid scenario testing, allowing users to stress-test staking strategies and assess robustness under real-world outcome variability

NAÏVE BAYES CLASSIFIER MARKET CRASH PREDICTION May 2024

- Trained a Naive Bayes classifier to predict monthly market crashes using macroeconomic indicators including VIX, inflation, and unemployment
- Devised a binary crash signal to enable classification and reduce signal noise in monthly S&P 500 data from 1985–2023
- Addressed class imbalance through undersampling, improving crash detection frequency while maintaining out-of-sample test accuracy of 74%
- Backtested prediction strategy, yielding a cumulative return of 6,618% vs. 2,235% for buy-and-hold S&P 500

SOLVERSHEETS – AUTOMATED STUDY DASHBOARD Jun 2025

- Systematized a VBA-powered Excel dashboard to analyze large-scale solver outputs, transforming .csv data into pivot tables, equity heatmaps, and strategy breakdowns
- Structured scenario selection and flop filtering using dropdown controls and board texture logic, enabling rapid comparison across hundreds of decision nodes
- Implemented heuristic ranking logic and conditional formatting to visualize optimal betting frequencies and simplify strategy interpretation at scale
- Enabled deep data slicing and pivot-driven analysis, reducing study prep time and improving consistency for technical solver review and strategy exploration

NUMQUANT – MACRO DASHBOARD AND EQUITY SCANNER Jun 2025

- Organized a Python dashboard aggregating live macroeconomic data (FOMC calendar, CPI, GDP, inflation expectations) via web scraping and API integration
- Scraped and parsed Federal Reserve meeting calendars to support macro-timing strategies and track policy-driven market risk
- Provided an equity lookup tool with ticker-based search, providing stock-level financial data and watchlist customization
- Guided macro-informed trading and portfolio research, combining real-time data access with Python automation

ADDITIONAL SKILLS & EXPERIENCE

Financial Analysis: Budgeting, Forecasting, Variance Analysis, Financial Modeling, ROI Analysis, Cost-Benefit Analysis
Software: Python, R, SQL, Excel (PivotTables, Solver, VBA), PowerPoint, Tableau, Bloomberg Terminal
Certifications: Bloomberg Market Concepts (BMC)

APPLIED QUANTITATIVE METHODS IN POKER

- Built a custom Excel analysis tool (SolverSheets) to automate strategy workflows and apply game-theoretic heuristics
- $50,000+ in combined live and online earnings using solver-based GTO analysis and custom Excel tools
- Won 0.24 BTC from a bad beat jackpot while grinding online cash games (Jan 2025)
- 105th / 2,778 – WSOP Bracelet Event $500K Mystery Bounty (Jul 2024)
- 5th / 575 – WSOP $100K Sunday Major (Apr 2024)
- 4th / 630 – WSOP Circuit Super Series $75K NLH Double Stack (Dec 2023)