Sharv Save

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Education

Vanderbilt University **May 2027**

***B.S.** Computer Science, **B.S.** Applied Mathematics* *Nashville, TN*

Coursework: Data Structures, Discrete Structures, Linear Algebra, Multivariable Calculus, Algorithms, Probability/Statistics
Organizations: Alpha Kappa Psi (Professional Fraternity), Kappa Theta Pi (Tech-Professional Fraternity), VandyQuants

Experience

Sabrepoint Capital Management **May 2025 – Present**

Investment Data Science Intern *Dallas, TX*

- Built a technical signaling algorithm for firm positions upwards of $1.2 million, notifying to sell, cover, and position
- Applied Savitzky-Golay filtering method to smooth price data and dampen noise for momentum-based strategy, with avg. win rate of 58% and avg. return of 14% on a 30-day period
- Engineered an XGBoost algorithm paired with a wavelet transform, for predicting phases of stock price action, with avg. win rate of 63.1%, and avg return of 16.2% on a 60 day period
- Designed a multi-factor fundamental model, able to screen all 10,033 tickers recognized by the SEC and rank by fit
- Conducted event studies varying by initiating condition and evaluating pure five-factor alpha of the event, avg. 3%
- Utilized Next.js, Python, Polars, PostgreSQL, Docker, to develop an in-house portal with equity research screens from sources such as SEC EDGAR database, AlphaVantage, and CapitalIQ

Vanderbilt University Medical Center (Laboratory of Ivelin Georgiev) **Jan 2025 – May 2025**

Computational Research Assistant *Nashville, TN*

- Refined a Large Language Model (LLM) to generate possible RNA sequence combinations for antibody discovery
- Devised an algorithmic approach to pair RNA sequences, excellently troubleshooting faulty data and pairing failures
- Utilized Python (Pandas, RIOT, ABnumber) to perform extensive data analysis on 1.3 million+ RNA sequences

Sankalp Realty **May 2024 – Aug 2024**

IT and Analytics Intern *Frisco, TX*

- Utilized Monte Carlo Method to develop ideal investment strategy, resulting in internal rates of return of 15%+
- Used Python to source fantastic investment opportunities with cap rates over 7% for asset values above $1.2 million
- Leveraged enterprise software techniques and proper structure to mitigate the risk of IT/software errors by 45%

Projects

Personal Trading & Financial Research – *Self-Employed* **Aug 2019 – Present**

- Devised a strategy using relative value & quantamental analysis to attain avg. returns of 7-8% per trade
- Wrote a macro factor based mid-frequency trading algorithm with a win rate of 57%, and mean cumulative alpha of 2%
- Engineered a two-step stock analysis program to employ Piotroski's F-Score, and forecast close using a neural network

The Trader Agent – *Quantitative Developer* **Feb 2025 – May 2025**

- Aided in the development of a trading agent with VQ-VAE for processing IEX level 1 market data TOPS spools
- Developed a backtesting engine for offline RL model in high-frequency algorithmic trading, simulating market scenarios
- Created UV library to process market data spools from Alpaca websocket to Polars for time-series analysis

RoboAdvisor by FinTechUTD – *Investment Data Scientist, Project Director* **Feb 2024 – Sep 2024**

- Led team of 30 in creating web platform to provide users with personalized portfolios using a Black Litterman model
- Engineered an LSTM machine learning model to predict returns of the 11 GICS sectors, minimizing MSE to sub 11%
- Refined model and sector allocations to achieve a Sharpe Ratio of 1.45, representing high risk-adjusted returns
- Developed tool to be used by UT Dallas Jindal School of Management investment fund, with approx. $250K AUM

Parkin-Sense – *Co-Founder, Data Scientist* **Jul 2021 – May 2023**

- Motivated by late relative's diagnosis conditions to develop a novel solution for remote Parkinson's Disease diagnosis
- Presented software and business plan at various global innovation competitions, receiving $3,000+ in funding
- Engineered a pipeline to process 5000+ Parkinson's Disease features to refine model's training data and quality
- Utilized an ensemble machine learning model to achieve an accuracy rate of 99.3%, with NO false negatives in testing

Skills and Interests

Technical: Python (Scikit-Learn, Tensorflow, PyTorch, UV, Alpaca, Flask), Java, JavaScript(React, Node, Next)
Tools: Tableau, Power BI, R, Jira, AWS, Docker, MATLAB, Vercel, Railway, Capital IQ, Interactive Brokers
Interests: Running, Stand-up Comedy, Sherlock Holmes, LinkedIn Games, Weightlifting, Comic Books, The Big Short