Evan P. Taylor

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EDUCATION

Boston College   Chestnut Hill, MA
Bachelor of Science in Computer Science, Bachelor of Arts in Mathematics   *Aug. 2021 – present*
- Relevant courses: Data Structures & Algorithms, Machine Learning, Discrete Math, Computer Systems, Probability, Multivariable Calculus, Linear Algebra, Differential Equations

The Browning School   New York, NY
High School; Graduated Cum Laude   *Aug. 2017 – May 2021*
- SAT: 1510
- GPA: 3.8

PROJECTS

Neural Network from Scratch | *Python*   Spring 2023
- Designed and implemented a multi-layer neural network from scratch using NumPy in Python, demonstrating a deep understanding of the principles of neural networks.
- Engineered the model with ReLU activation for hidden layers, Softmax activation for the output layer, and applied Cross-Entropy as the loss function, optimizing it for multi-class classification problems.
- Implemented Stochastic Gradient Descent with learning rate decay for model optimization, improving the model's learning efficiency and convergence.
- Used a custom spiral dataset for training and validation, demonstrating the model's versatility and effectiveness, achieving an accuracy of 94%.

NBA Predictive Model | *Python*   Spring 2023
- Developed a predictive model for NBA game outcomes leveraging Python and advanced Machine Learning classification algorithms such as RandomForest, Logistic Regression, and XGBoost.
- Processed and cleaned raw data using Pandas, and designed custom feature sets based on calculated team statistics, which enhanced the predictive power of the models.
- Implemented a GridSearchCV approach for hyperparameter tuning of the RandomForestClassifier to optimize model performance.
- Achieved a training accuracy score of 75% and actively working to improve the model.

Trading Strategy Backtester | *Python*   Summer 2022
- Developed a command-line backtesting engine utilizing Python's argparse module for user input and Backtrader for data feeds and broker simulation.
- Integrated multiple trading strategies including Buy & Hold, Moving Average Crossover, and Stochastic Oscillator, providing users with versatile testing options.
- Incorporated a functionality to read stock price data from Yahoo Finance CSV files, ensuring up-to-date and accurate data for backtesting.
- Implemented portfolio value visualization (matplotlib) before and after running the chosen strategy, providing a clear measure of strategy performance.

EXPERIENCE

Computer Science Tutor   Oct 2022 - May 2023
Boston College   *Chestnut Hill, MA*
- Served as a dedicated Computer Science Tutor at Boston College, providing personalized academic support to freshmen students enrolled in Computer Science I and II courses.
- Helped students master a wide variety of content covered in the aforementioned courses beginning with an introduction to programming in Python, through data structures and sorting algorithms in Java.
- Excelled at distilling complex topics into easily understandable content, effectively bridging the gap between student's foundational knowledge and more advanced concepts.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, JavaScript/HTML/CSS, R, SQL
Developer Tools: Linux, Git, VIM, VSCode, PyCharm, Eclipse
Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, Node.js, React