BlackRock is the world's largest asset manager; this is in part thanks to Aladdin (Assets, Liability, Debt, and Derivative Investment Network) (Dolor, 2017). This software created by Blackrock is estimated to handle 10% of the world's assets (Henderson, 2020). If the world's most successful companies are using Aladdin to manage their colossal portfolios, it's hard not to ask the question, why aren't you? Probably because it's costly, JP Morgan paid a 5.3 million dollar annual fee for this software (Durodie, 2020). Companies are happy to pay this fee, receiving real-time risk analytics through advanced data mining (word analysis, foot traffic). It's not necessarily that the technology behind this software is so advanced that it can predict what happens in the market before it happens; the scale of assets managed by Aladdin is so large that it can move the market by itself.

The Random Walk Theory says that if markets are perfectly efficient and stocks are priced according to all the available information, then new news is the only thing that can change the price of a stock (Beck, 2020). Since this cycle of news is unpredictable, stock prices move randomly. I am presented with an opportunity to create a scaled-down version of Aladdin for small retail investors like myself and small businesses. Assuming it is impossible to predict stock price even with the best machine learning algorithms and data sets. One could be much more successful in trying to predict what Aladdin is going to do. Since the software is known to move markets with its alerts, it could be incredibly valuable to see those alerts in real-time. In machine learning, there is a limited number of strategies in predicting changes in stock price. For example, moving averages, linear regression, multilayer perceptron, and K-nearest neighbors, along with things like sentiment analysis, moving average convergence divergence indicator (MACD), RSI buy and sell indicators, and Bollinger Bands (Malik, 2021). Given enough time

and research, it would be possible for me to create a program that includes all of these strategies. After comparison to movement in known stocks managed by Aladdin software, gather a prediction of how Aladdin assesses risk. Thus, I would deem it valuable to myself and possibly others to create a scaled-down version of the software.

I would launch this software on a free-to-use website and run ads to generate profit from it. I am marketing it first to people interested in this kind of technology by writing an article on Medium.com outlining the software's purpose and creation. Later I could buy targeted ads trying to reach people who use platforms like Robinhood. Of course, there is competition for this kind of portfolio management software. Still, from what I can tell, all of these are monthly subscriptions, making my version more attractive to the ten million new investors using commission-free trading platforms (Rooney, 2020). Popular Sub-Reddit WallStreetBets is known to have members who post incredible research. I believe my software could attract some of these users and be beneficial in their research.

In 2019 the failure rate of startups was about 90 percent (Bryant, 2021). My startup would most likely fail because there are tremendous competitors and much more talented software engineers. Even with these odds, I would work extremely hard on my software. In creating this program, I would gain vast amounts of new information about stock analysis while creating something I could personally benefit from. In the likely event of failure, I will still have gained valuable experience that could lead me to get hired in an exciting role as a software engineer. In the unlikely event of success, I will have been successful in fulfilling my goal of helping democratize the information available to investors when buying and selling assets, which would be more than enough to motivate me to keep growing and improving my company. Successful entrepreneurs are comfortable with failure, persistent, and self-motivated. I believe myself to be

all three of these things. I am excited to continue my research and work on the software I described above. I can only hope I am successful in achieving my goals.

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