

Knight Foundation School of Computing and Information Sciences

Fall 2024 Senior Design Project

Stock Predictor

Students: Manuel Albisu-Bouza

Instructor/Faculty: Florida International University

PROBLEM

With how unpredictable stock market fluctuations occur, this poses a significant challenge for investors and analysts. The absence of personalized user experiences and ways to track stocks hinders the effectiveness of existing solutions, which is something we are addressing with this project. Thus, our project works to combine the predictive power of traditional algorithms along with a user-friendly web interface, which gives users the ability to login and track stock data easily.

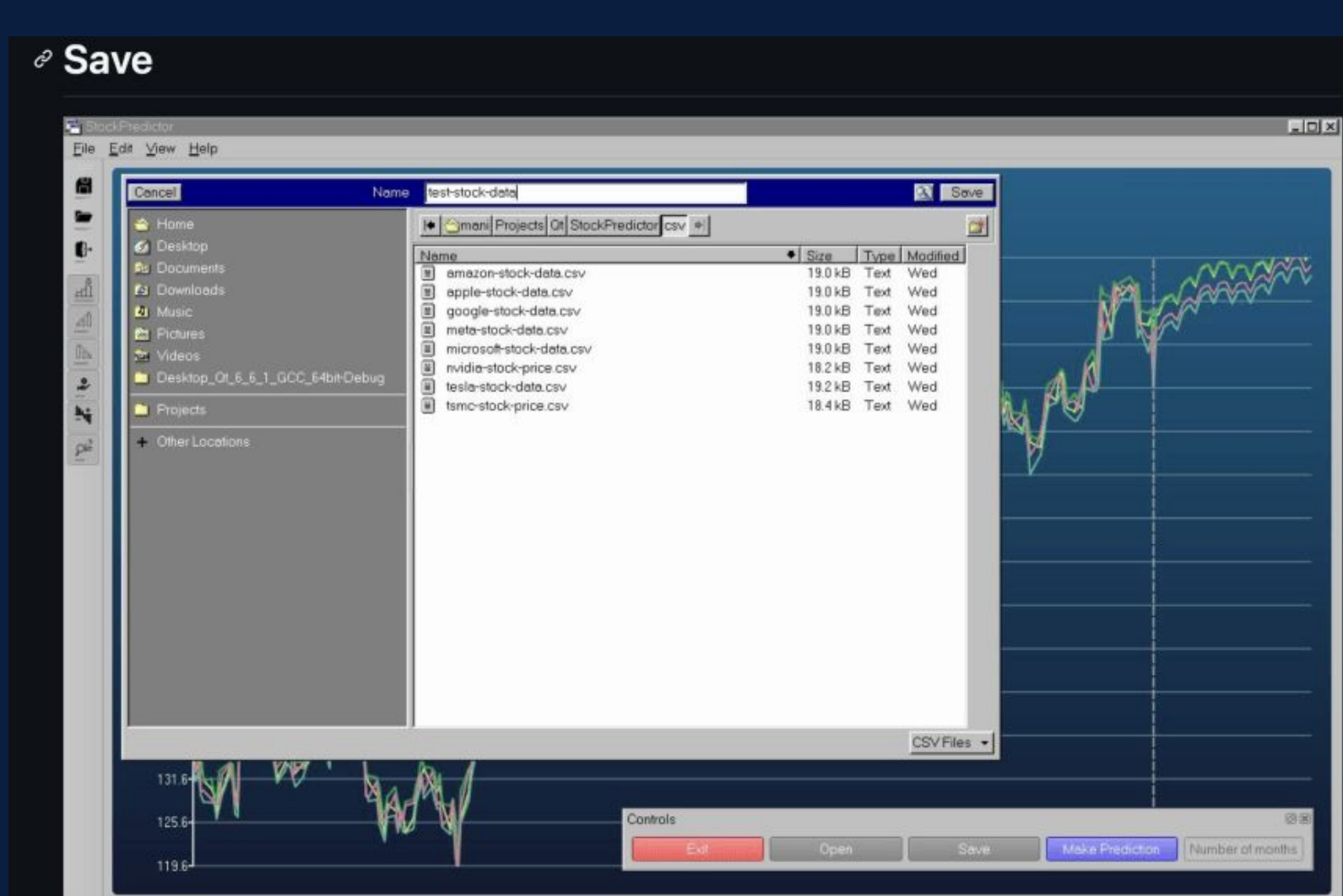
TECHNOLOGIES

- C++
- Python
- Facebook Prophet
- Qt GUI Framework



DESIGN

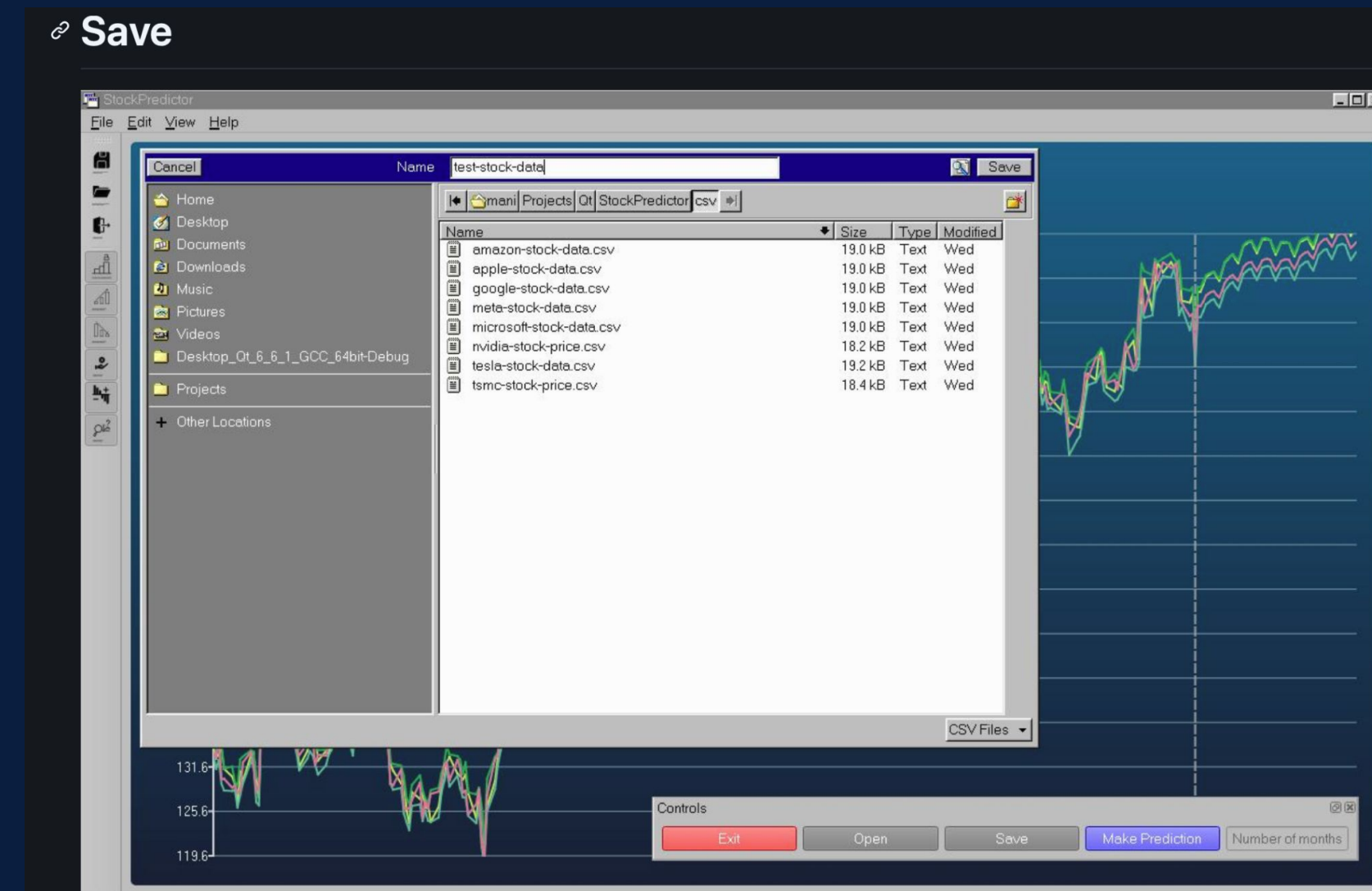
The stock predictors interface prioritizes simplicity and gives the user several options for achieving the same goal. This was done to reduce the learning curve for using the program.



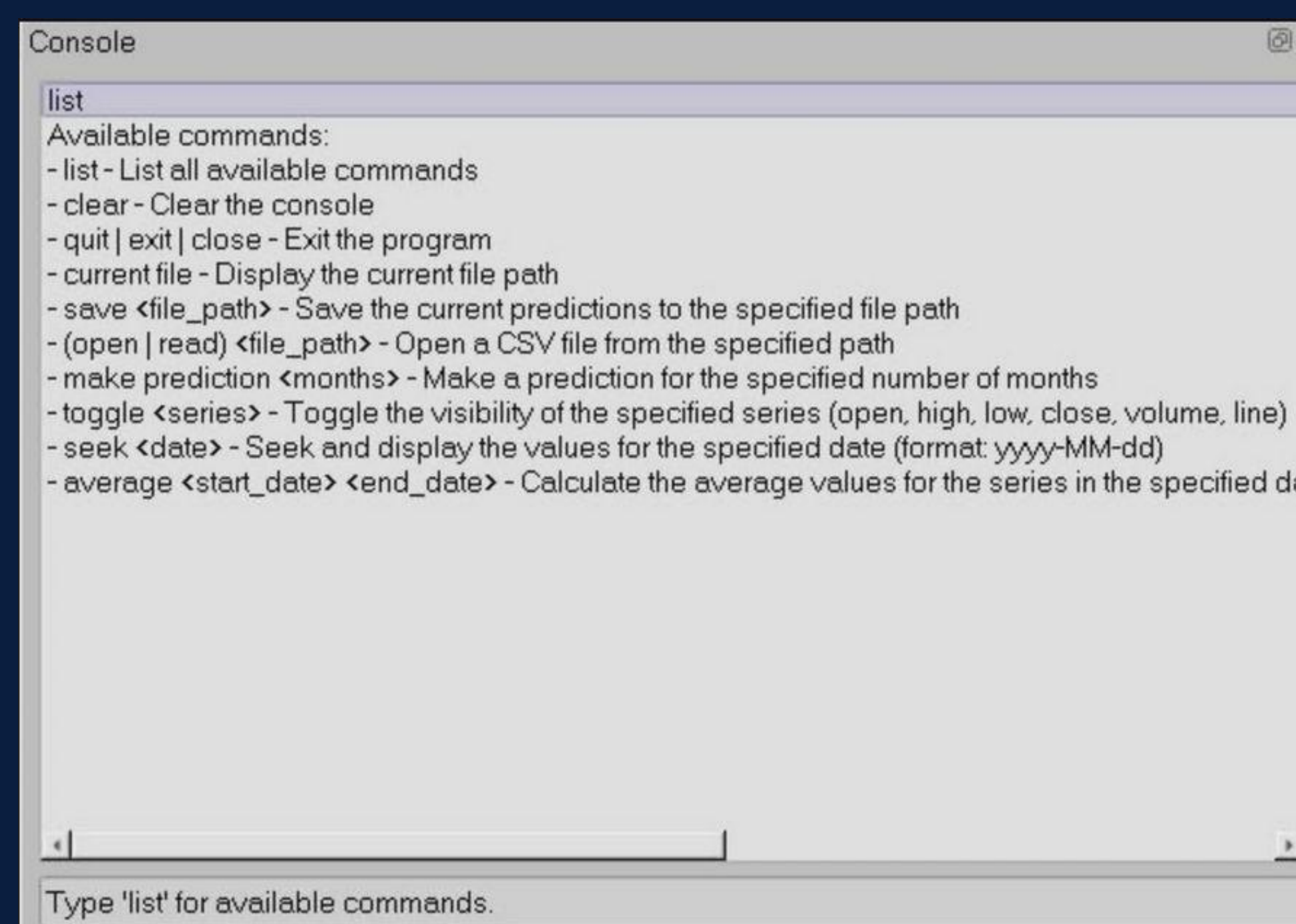
FEATURES



The stock predictor's interface hosts several control methods, granting the user freedom to decide how they wish to interact with their data.



The interface sports a console for manipulating the data via text, a control dock with large buttons that can aid impaired users, and a menu and toolbar for altering the central graphs visuals.



CONCLUSION

As a team we were able to fully comprehend the actual efforts required to deploy a fully executable app into the market. Using the SCRUM development process was an eye opening experience into the professional world and the requirements needed to be met daily while working on large scale apps in teams. The development of the team's chosen application idea has lead us all to understand, we have a lot more to learn even though we have learned a lot in our journey's.

FUTURE WORK

In the future, our stock predictor app could integrate advanced machine learning models, tapping into alternative data sources like social media sentiment and satellite imagery for economic insights. Personalization would refine recommendations based on user feedback, while enhanced visualization tools offer immersive data exploration. Blockchain tech could enable decentralized prediction markets, fostering crowd-sourced insights.