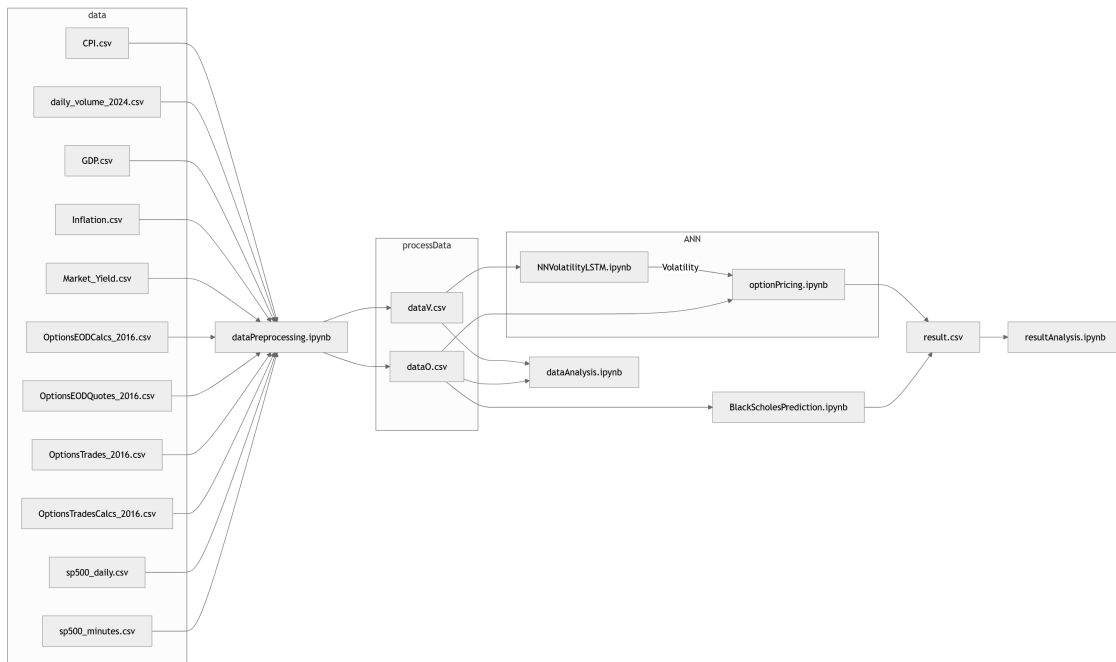


Research Project Report

February 7, 2025

1 Introduction

This document will clearly outline the advancement of the research project. Based on the Scrum and sprint methodology, I will update the document every week, including what is new and what is next.

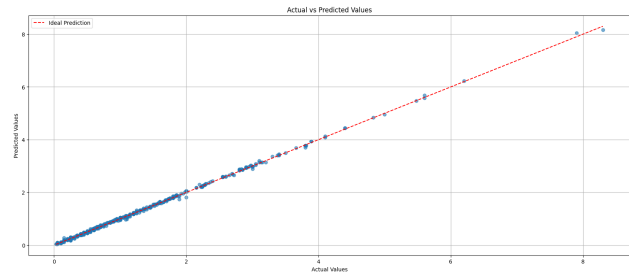
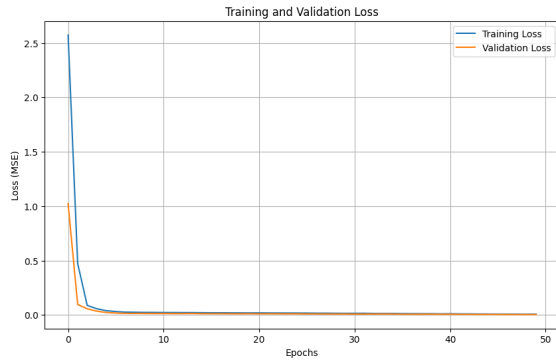


Iteration 1

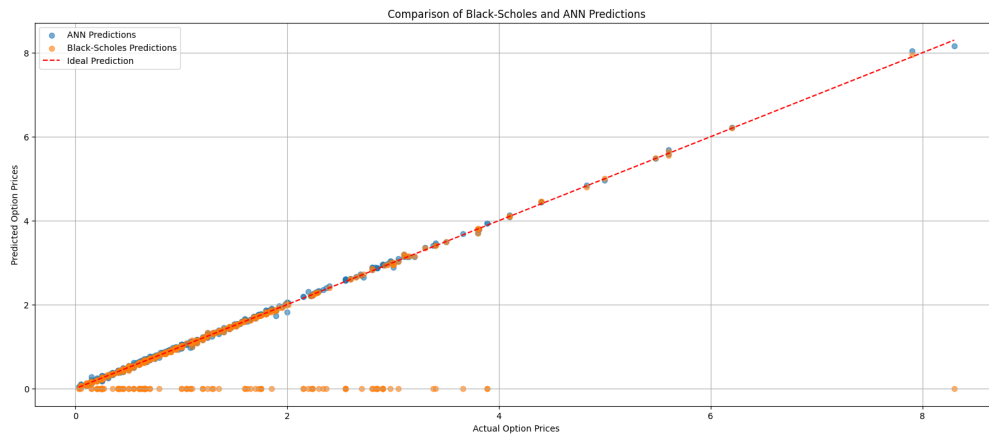
February 3, 2025

What Is New?

- Created and trained a model for option pricing, using Black-Scholes parameters to target option prices.



- Compared the model's performance against Black-Scholes models:



- Started to build a custom LSTM model with NumPy. For now, I think Python allows better flexibility and development time than C++, while still maintaining decent performance using only NumPy. I want the model to be compatible with TensorFlow formatting for easier use. It can be found in `code/models/annModels.py`.

What Is Next?

- Finish the custom model.
- Outliers suppression