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GitHub Repository: https://github.com/MasterMalcolm/jupyter-exploration

Lab Journal

I got started with creating my GitHub account so I could link my code and changes as I followed the prompt. After I created a short README file, I saved it in my new repository. Next I setup an environment in Jupyter Notebook so I could code my first repository. I chose Jupyter Notebook over Google Colab, because I want to use this course to explore as many platforms as possible. So many products are produced directly by or are intended to be used directly with a Google-based environment. Jupyter Notebook is new to me so using it will expand my horizon on coding.

Upon initializing my first Jupyter Notebook, I added a plain text Markdown cell to add short documentation to the code. Next I added a Coding cell so I could write my first bit of code. It was a classic “Hello World” display, using the Python coding language. The biggest hurdle was figuring out how to migrate the notebook over to my GitHub repository. Eventually I learned how to create a directory on my desktop and link that to my repository with the GitHub Desktop widget. Once I setup this workflow, it was easy to update the file, so version control is a streamlined process. The Jupyter web interface was key in guiding me to understand how the files are linked together.

Final Thoughts

For further practice with coding environments, I’m using Visual Studio Code from Microsoft. I’m using this platform to practice with Python syntax and coding logic. I’m starting with building a Chess engine. So far, I have completed the UI and programmed the logic for the unique rules that govern a piece’s movement on the board. Other features include a move log and “undo move” function with a press of the ‘Z’ key. Further steps will include building logic for special moves: castling left and right, pawn promotion, and pawn en passant. I will also program considerations for checkmate and stalemate scenarios, to prevent a player from violating those rules. The final iteration will be an AI

agent that uses all the aforementioned logic to play against a human user. The completed Chess engine will be available in my GitHub repository, when I'm finished.

This lab exercise showed me how to get started with a coding repository that I can publicly share. This GitHub platform is an important tool for communicating with all levels of enthusiasts, from novice hobbyists, to dedicated veteran researchers. This repository is a valuable portfolio and resource. I purchased a book about Deep Learning for Neural Networks, and it has a companion GitHub account that helps the reader walk through some of the in-book exercises. I look forward to more labs and to understand the full functionality of these platforms.