Links to presentation(s) and code(s) on GitHub

Presentation 4 - STAT 390

Trainer with attention analysis:
https://github.com/arvindkrishna87/STAT390_CMIL_Fall2025/tree/main/Code/MIL/MIL_trainer_17Nov_Annika

Visualize patching code:
Patching_Code_Annika.ipynb is showing up on Github desktop but not website

• What did you do?

1. I added code to Luna's attention analysis code that extracts patch index from the file name.
2. Plotted patch effective attention vs patch index for the top 20 slices with the highest attention.
3. Ran Spring's patching code and made edits to run on my computer given some library version differences.
4. Edited the patching code to fill in each patch square with a color corresponding to the patch's effective attention weight.

• How does it help the project?

This code strengthens our attention analysis to see if there are regions of the slice with high attention, or if there are one-off patches with high attention. The plots help see the distribution of high attention slices while the patching visualization allows us to directly see high attention patches on the slice. This proves that our attention code is properly working.

• Issues faced (if any)

1. I had a lot of trouble running the Spring's patch visualization code, as I had a newer version of some libraries.
2. Debugging the attention visualization code took some time.

• Attempts to resolve issues (if any)

ChatGPT showed me how to create a new conda environment with the proper library versions to run the code without modifications. I originally tried modifying the code to run, but that was inefficient.

• Issues resolved (if any)
The code now properly runs.

• Next steps

1. Fix the gradient visualization to be easier to visualize. The colors are very opaque and it is hard to clearly differentiate between light and dark colors.
2. The code is still running so I will share the results of the remaining 20 visulaized slices.
3. Rerun the code based on our newest run of the model. These results use the best checkpoint from last Thursday.

• References (Mention if you built up on someone else's work)

ChatGPT
Luna's attention analysis code