TGM Report 4 Implementation 3

Topic #3: VAE-based Medical Image Generator

Tasks

1. Decide and improve models on the three decided datasets (Finetuning)
2. Decide which model to use for the respective dataset
3. Setup basic flask template

Who did what

Felix:

- Extend and implement VAE to CVAE
- Research about Flask

Zixuan:

- Extend and implement VAE to Vq-VAE
- Research about Flask

Ruben:

- Extend β-VAE with more layers and latent size
- Research about Flask

Group

- Decide on three datasets we want to use for the final result: PathMNIST, BloodMNIST, OrganAMNIST (+OrganCMNIST + OrganSMNIST to generate more traning data)

Problems

1. Model implementations only work for one dataset
2. CUDA assertion error in Colab because of updated CUDA version

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Solutions

1. Debug our current implementations to find the root cause (channel/ input dimensions)
2. Install explicit pytorch version for the CUDA version

Outlook

- Work on the tasks
- Get more deeply into the variants of VAE

Miscellaneous

N/A