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# CmpE 58P

## Assignment 3 -

### Training

Boğaziçi University CmpE 58P Assignment #3 Results

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This is the third assignment in a series for the CmpE 58P course, which focuses on Artificial Intelligence in Healthcare. Our goal is to differentiate between **Covid** and **Normal** patients based on their lung CT scans. To accomplish this, we will be using a large COVID-19 CT scan slice dataset that can be found [here](#) [1]. Our task involves implementing a custom data loader, applying augmentation techniques to our dataset, and creating a CNN architecture for binary classification. The focus of this assignment is to train our network and fine-tune its parameters using WandB.

Overall, we will be running 10\* different experiments with varying hyperparameter configurations. On average, we achieved an accuracy of approximately 82% on the test set. For an interactive interface, please refer to this [link](#). You can click on the sweeps to view the specifics of the hyperparameters used in each experiment.

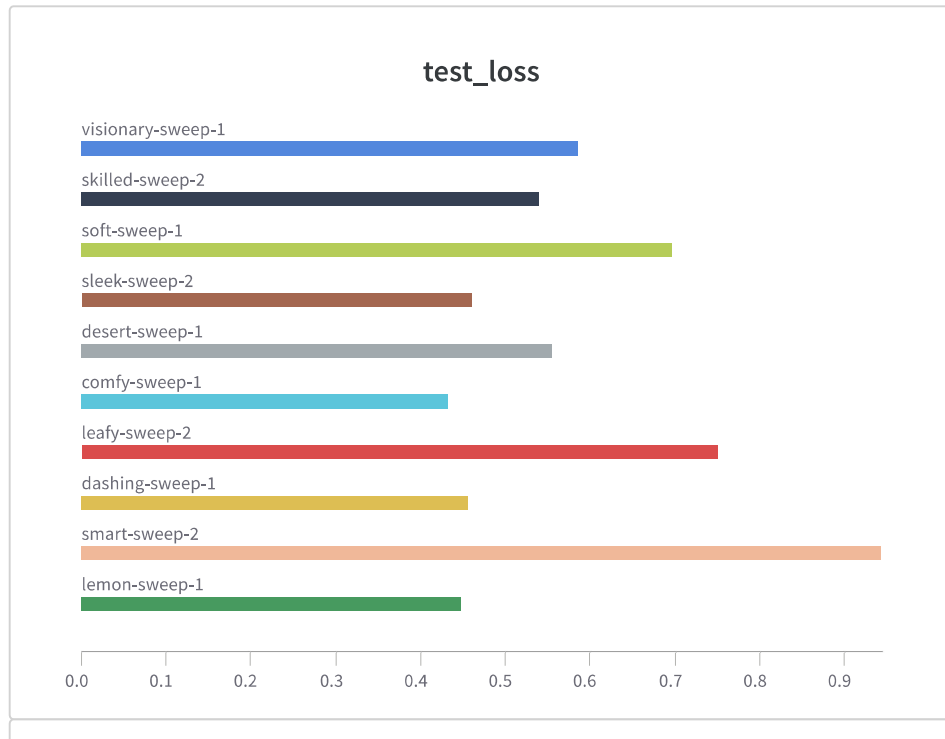
[1] Maftouni, M., Law, A.C, Shen, B., Zhou, Y., Yazdi, N., and Kong, Z.J. “A Robust Ensemble-Deep Learning Model for COVID-19 Diagnosis based on an Integrated CT Scan Images Database,” Proceedings of the 2021 Industrial and Systems Engineering Conference, Virtual Conference, May 22-25, 2021

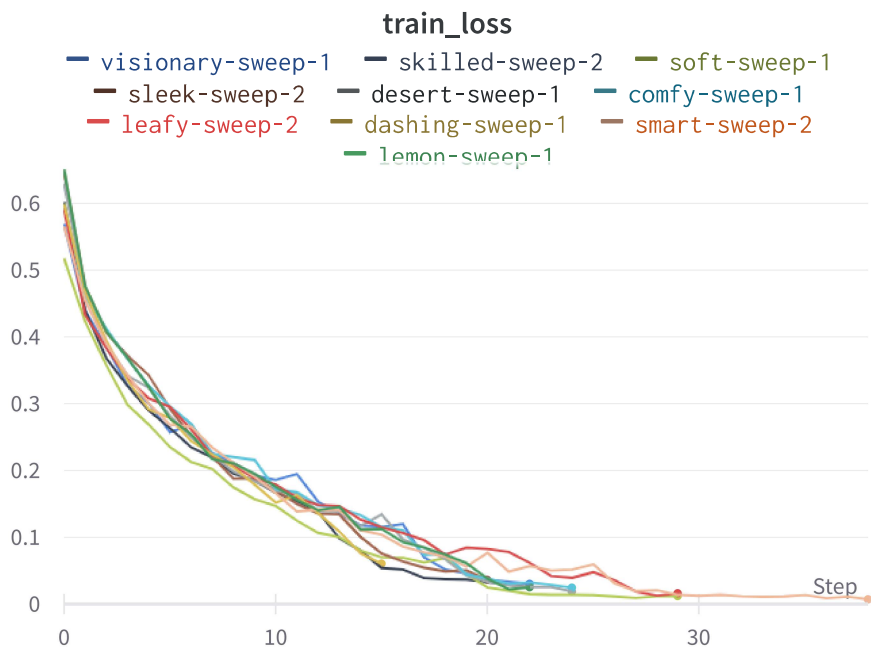
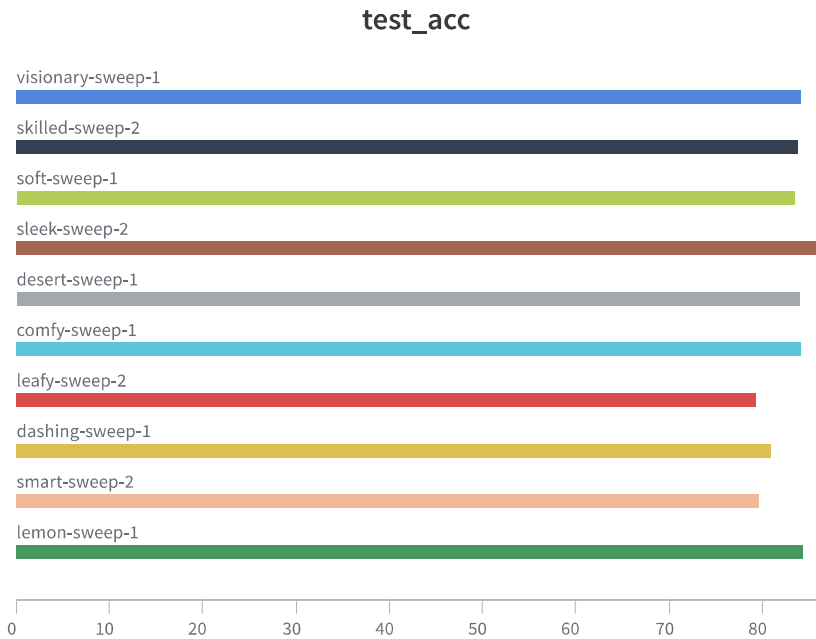
Dataset link:

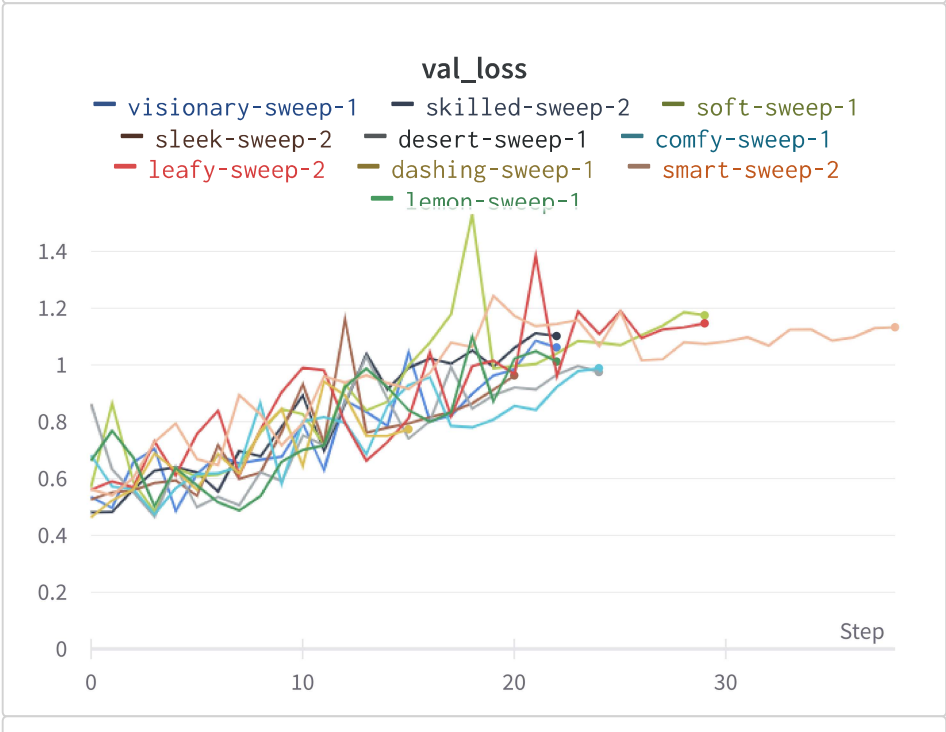
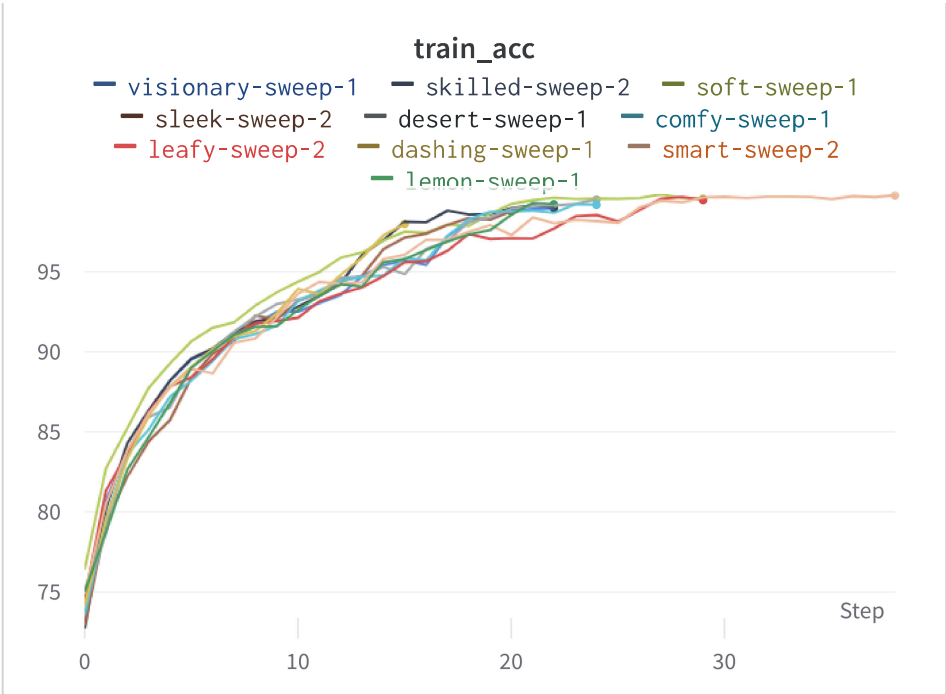
[https://www.kaggle.com/datasets/maedemaftouni/large-covid19-ct-slice-dataset?select=meta\\_data\\_cap.csv](https://www.kaggle.com/datasets/maedemaftouni/large-covid19-ct-slice-dataset?select=meta_data_cap.csv)

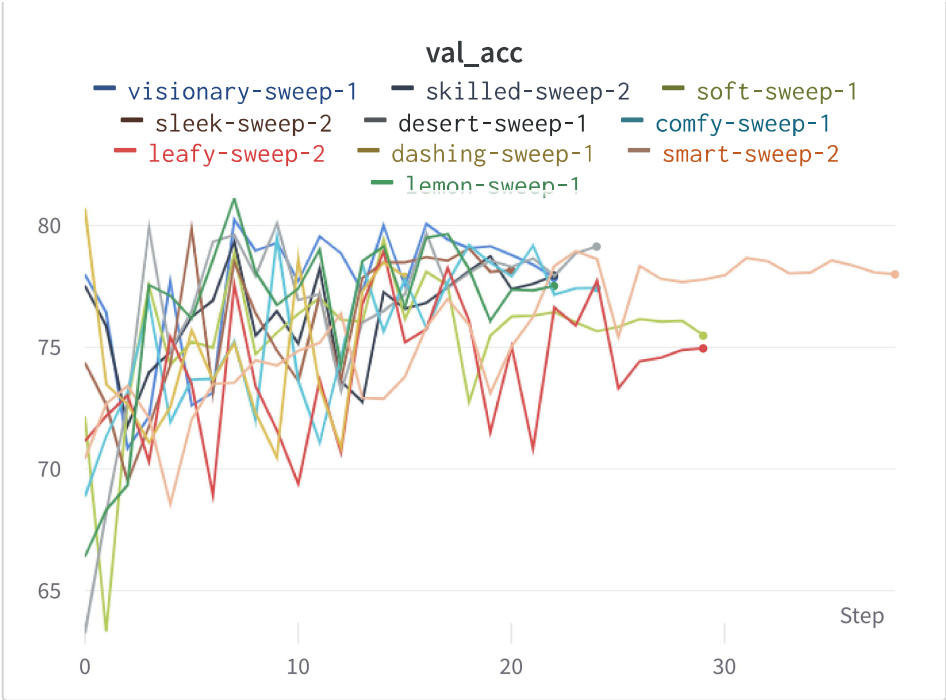
Interactive report link: <https://api.wandb.ai/links/agape/fzqp8k8g>

## Results









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<https://wandb.ai/agape/CMPE58P/reports/CmpE-58P-Assignment-3-Training--VmIldzo0MjE5NzA4>