

STTAI-Assignment6-Reproducibility-HPO

[GitHub Link](#)

Team 25

Members:

Name	Roll Number
Romit Mohane	23110279
Rudra Pratap Singh	23110281

Introduction

The goal of this assignment is to learn about experiment tracking, version control, and reproducibility in machine learning workflows. You will set up experiment tracking using Weights and Biases.

Section 1: MLP Model Implementation & Experiment Tracking

In file **Section1.ipynb**

Screenshots

Model architecture, Hyperparams, logged metrics

romit-mohane01-llt-gand... > Projects > 2x_mlp-iris > Table

Romit Mohane

romit-mohane01-llt-g...

Romit-mohane01's workspace

Personal workspace

Runs (10)

Search runs

Filter Group T4 Sort New sweep

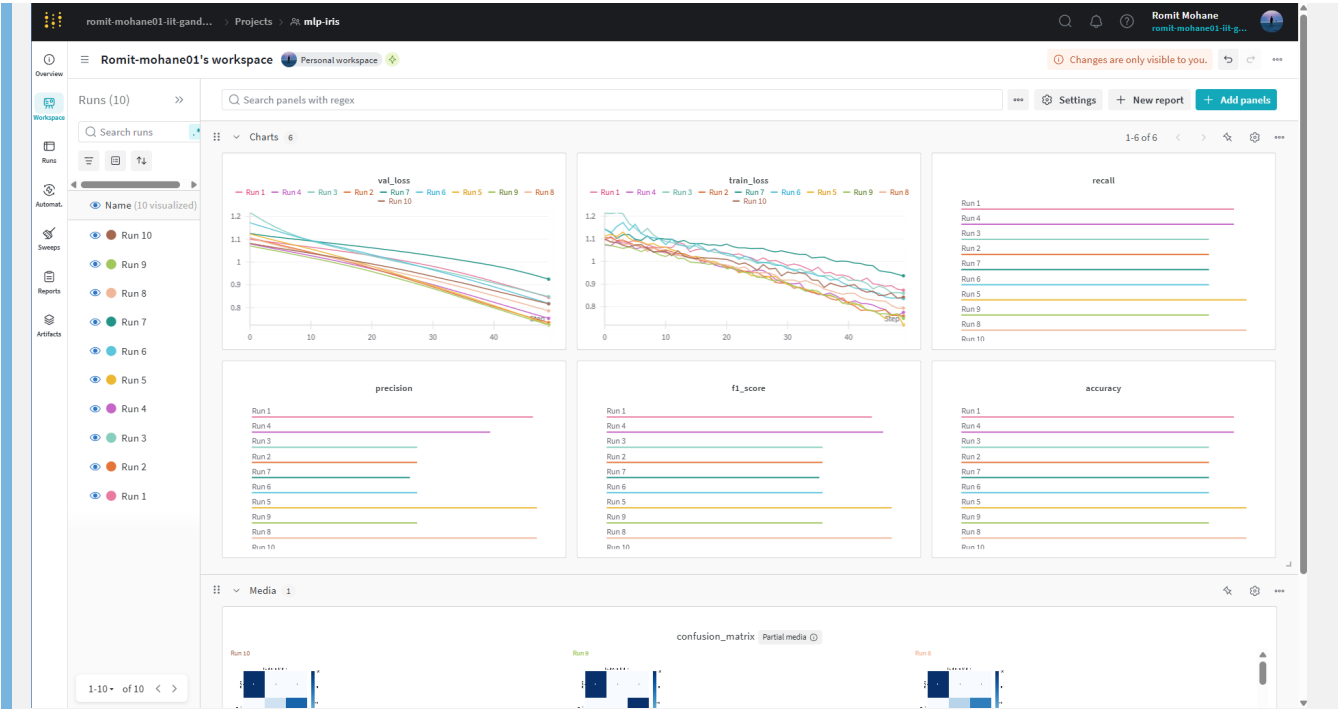
Columns

Download

	Name (10)	architecture.layers	batch	epoch	hidden	lr	arch	acc	f1_s	prec	reca	Cres	Runtim	End Ttr	ID	Update	train_loss
Run 10	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	4m ago	3s	Feb 25 '25	kjqlhw23	Feb 25 '25	1.02337	
Run 9	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	4m ago	2s	Feb 25 '25	6vdqd14i	Feb 25 '25	0.89847	
Run 8	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	4m ago	2s	Feb 25 '25	avrox0fy	Feb 25 '25	0.95376	
Run 7	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	4m ago	2s	Feb 25 '25	sga8wdcx	Feb 25 '25	0.96689	
Run 6	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	5m ago	3s	Feb 25 '25	zjcvknkp	Feb 25 '25	0.98714	
Run 5	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	5m ago	3s	Feb 25 '25	ok9ua3ia	Feb 25 '25	1.00359	
Run 4	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	6m ago	3s	Feb 25 '25	h7mwat33	Feb 25 '25	0.98012	
Run 3	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	6m ago	3s	Feb 25 '25	qq68pkur	Feb 25 '25	0.97579	
Run 2	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	6m ago	3s	Feb 25 '25	7qoc9kyC	Feb 25 '25	0.92721	
Run 1	[{"name": "input_layer", "neurons": 4}, {"name": "hidden_layer", "neurons": 16, "activation": "ReLU"}]	32	50	16	0.001	3	0.7	0.5935	0.535	0.7	7m ago	3s	Feb 25 '25	voImhpx	Feb 25 '25	0.97497	

Final Evalution results

1 / 3



Confusion matrix visualisation

