Sharif University of Technology Computer Engineering Department Ali Sharifi-Zarchi

Project Phase 2 Machine Learning for Bioinformatics, Spring 2023

1402-05-07

Alireza Gargoori Motlagh, Arian Amani, Amirmohammad Isazadeh

1 Description

Select a specific topic in the field of Single Cell analysis using Machine Learning and choose three relevant papers from the latest research in this area. In a Medium article, provide a comprehensive description of these three papers. Your article should explain the algorithms, models, datasets, and outcomes of the chosen papers. Additionally, you must compare the corresponding models with each other.

Next, pick one of these three papers and create a separate article on Medium that analyzes and explains its code and methods in detail. This article must cover the entire process from data preparation to model architecture construction and model training. Your articles will be evaluated based on the thoroughness of your explanations in both pieces.

2 Bonus Part

In the selected paper that you analyze in detail, try to identify any environmental or data-related conditions that may lead to poor results. If the authors have already addressed this issue, provide suggestions for improvement and share your own results.