

Weekly Report – Week 6

Project Topic: Person Re-Identification

Course Name: CSE623 Machine Learning Theory and Practice

Professor Name: Prof Mehul Raval

University: Ahmedabad University

Team Name: Tech

Team Members:

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Objectives:- Complete the final analysis and synthesize the results from both datasets experiments.

- Complete the final report which can include in-depth discussions, conclusions and directions for future.
- Investigate potential opportunities to deploy lightweight ReID systems for real-time situations.

Work Completed:-

- Final Results Synthesis
- Integrated performance measurements from the Kaggle and Market-1501 experiments to highlight the performance support for color-based features and HOG features under semantically controlled conditions and the limitations in real-world applications.

Discussion and Conclusions:

- Discussed the reasons underlying the distinct performance variances between controlled and real-world results, which included conventional features. applications were unable to capture the subtle changes present in complex multi-object scenes.
- Concluded that while conventional approaches are computationally efficient and interpretable, future work is needed to augment traditional methods (e.g. hybrid methods or deep-learning augmentation) to become robust in real-world.

Report Finalization:

- Completed the report template layout. The report has documented sections on methodology, experimental design, results and future directions.

Future Work and Deployment Considerations:-

we have indicated future plans to work on altering models (e.g., fusing sophisticated features, evolving ranking methods) and where there may be opportunities to deploy lightweight Re identification systems on edge devices or surveillance systems for intellectual applications.

Challenges:- Slicing down the vast amounts of experimental data into coherent and concise summaries.- Communicating the discussion around strong experimental performance versus performance and limitations in the real world.