Proposal for the OBJ-DISC Challenge

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Introduction

Our team proposes to participate in the Object Discovery Challenge, aiming to develop an innovative algorithm for discovering and grouping semantically coherent objects in large, unlabeled datasets, leveraging prior knowledge from labeled datasets.

Objective

To exceed the Object Discovery Challenge benchmarks by developing an algorithm capable of autonomously identifying and categorizing novel objects without human intervention.

Methodology

1. **Data Utilization:** Employ labeled and unlabeled datasets provided by the challenge, ensuring integrity and relevance.
2. **Algorithm Development:** Construct a model incorporating self-supervised learning, aiming to efficiently discover novel object categories.
3. **Innovation and Adaptation:** Explore new data augmentation, feature extraction, and clustering techniques to enhance model performance.
4. **Evaluation and Optimization:** Utilize provided metrics for iterative evaluation and refinement of the model.

Expected Outcomes

We anticipate developing a robust object discovery system that not only aligns with but also surpasses the current challenge benchmarks.

Conclusion

Our team is committed to advancing the field of object discovery and contributing our findings to the research community.