**Introduction**

**Deep Graph Team**
Goal: To convert simulated drug formulation video into text data detailing procedures and methodology.

**Human Parsing Team**
Goal: To ensure the safety and accuracy of laboratory procedures in pharmaceutical labs by verifying PPE (Personal Protective Equipment) compliance.

**Future Work**

**Human Parsing Team**

- Deep Graph Action Modeling
  - Remove the restriction of position awareness by implementing a different model architecture or by using a larger or a better, more representative dataset.
  - Utilize energy-based modeling to enhance the scalability of the model so that more object categories could be included.
  - Compare the performance of this MLP framework to a GNN network.
  - Improve accuracy of the algorithm to detect grabbing hand pose and make it rotation-agnostic.

- PPE Compliance
  - Improve PPE classification accuracy by implementing a different model architecture or by using a larger or a better, more representative dataset.
  - Add more classes to the PPE classifications, in order to capture more kinds of PPE.
  - Choose or implement an alternative method of detecting PPE on the human (such as by using pose estimation to grab different body segments, and then classifying them).
  - Build models that work better on fisheye images, when it comes to handling edge cases like highly distorted body part ratios.

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