



# **ENGN8501**

## **Group Project**

Motion Transfer with Refinement

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Introduction



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### Related work

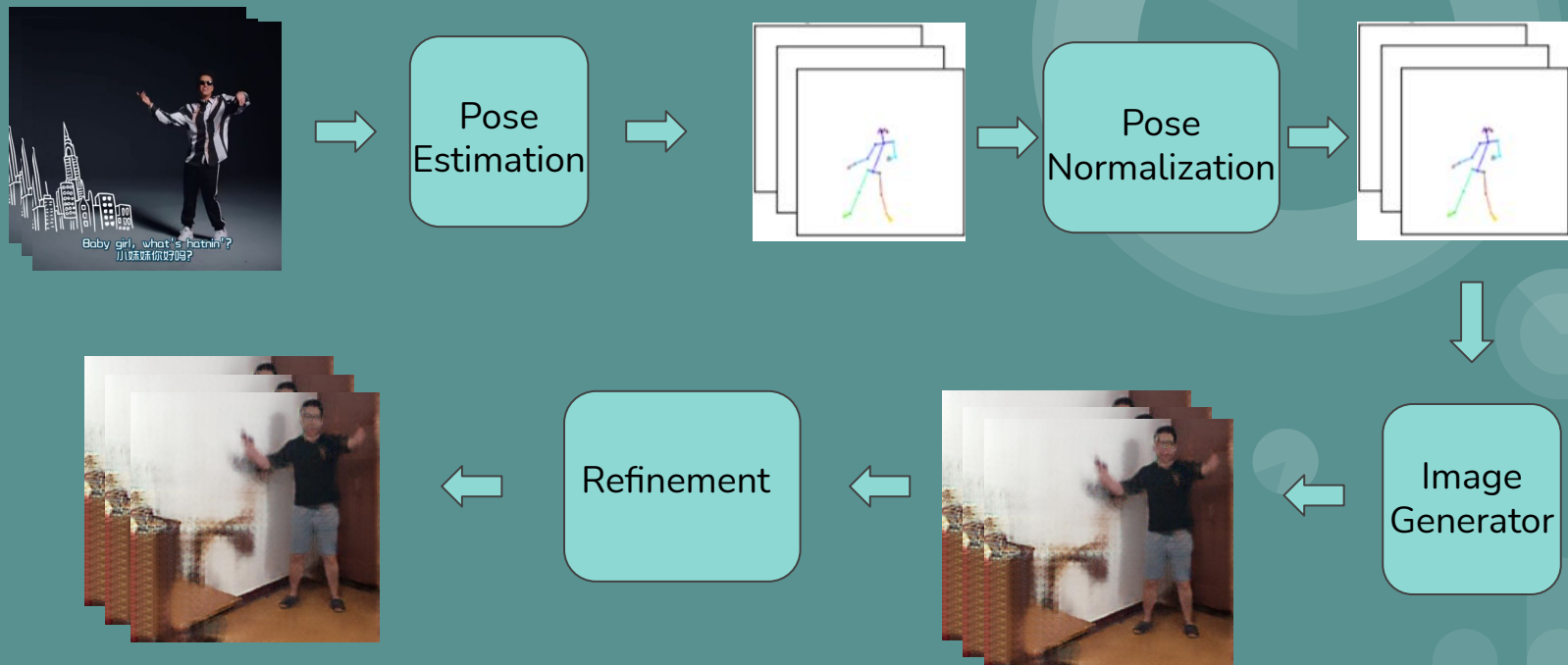
- Everybody dance now
- OpenPose
- Pix2PixHD
- SimGAN

### Novelty

- A full-body refinement to refine the output.

# Methods : The Whole Pipeline

## 1) Model

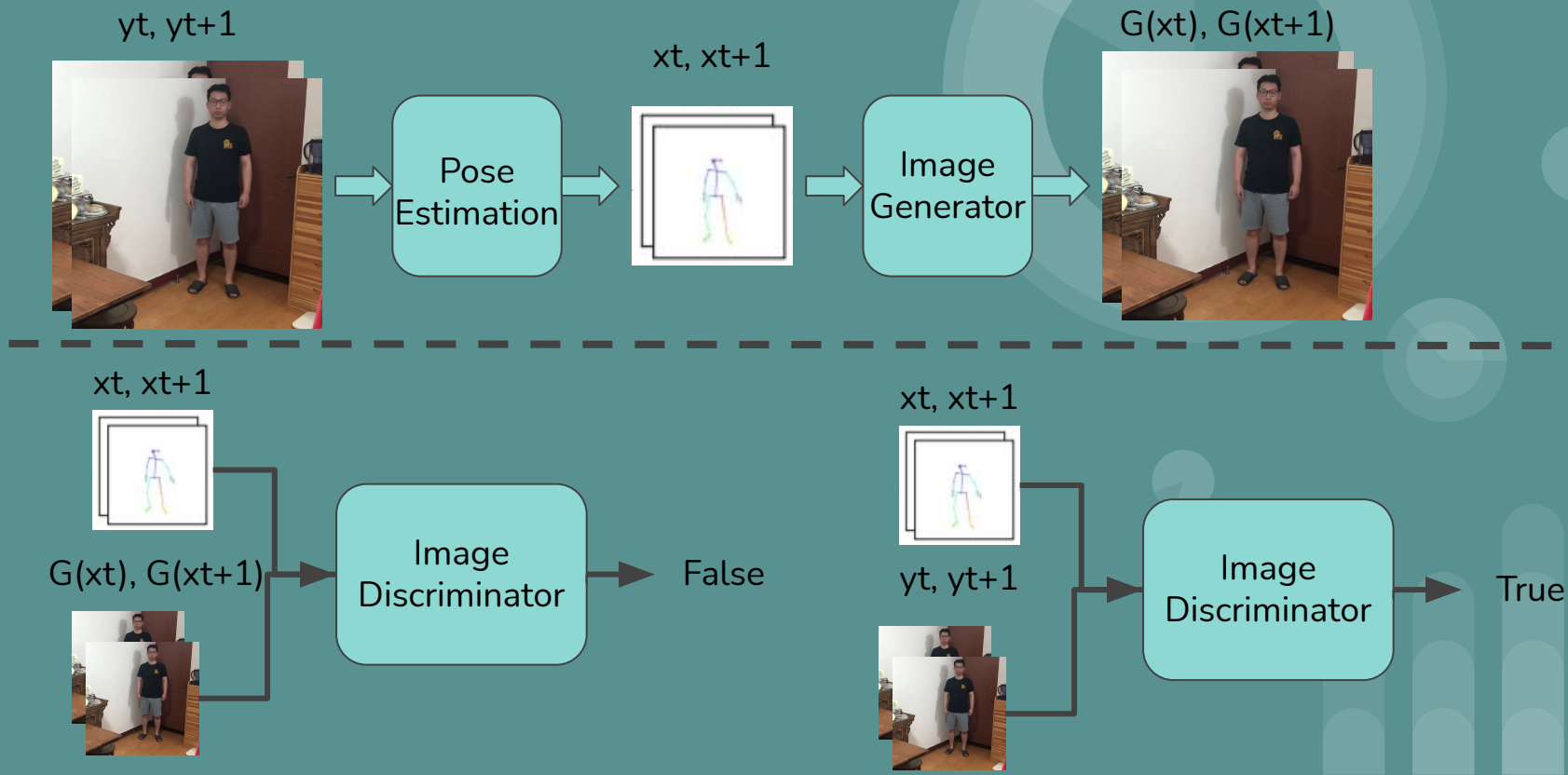


# Methods : The Whole Pipeline

Experiment Detail:

RTX 2080 MAX-Q, ADAM optimizer,  
learning rate 0.0002, epochs=10

## 2) Training



# Experiment-Ablation study



Original

No Refinement

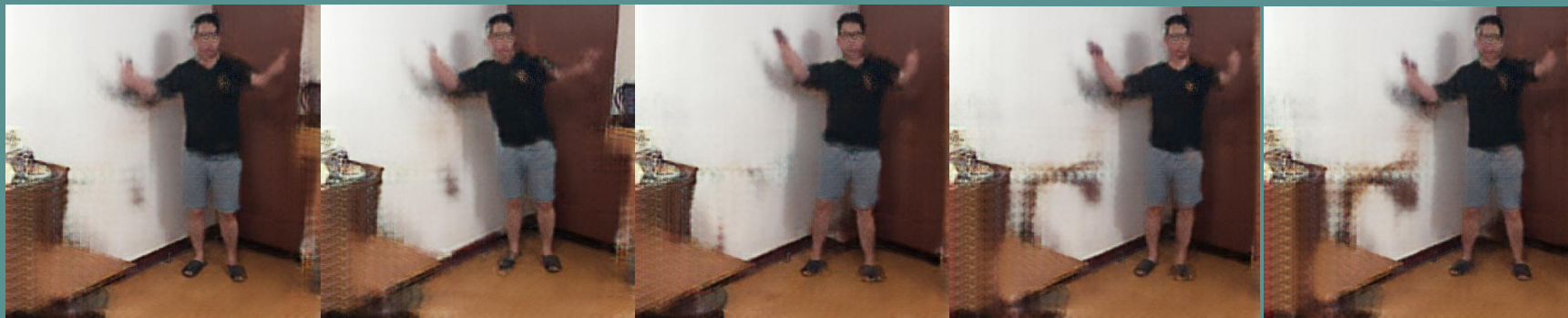
With Refinement



# Result



## Our Result



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Demo



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### Future Work

- Train a general GAN to generate the image
- Improve our refinement GAN
- Do quantitative perceptual study

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### Conclusion

We present a simple method for video-to-video motion transfer: given a source video of a person dancing, the model can generate a video of the subject target dancing the same dance. And we propose a full body refinement to refine the output of the GAN