

Advancements in Visual Perception: Event Camera, Micro Expressions, and SNN

Dataset online

- NEFER (convolution neural network, categories of emotion...)
- FES (Faces in Event Stream, 689 minutes, only for face recognition.)
*<https://www.kaggle.com/datasets/msambare/fer2013/data>
- CASME II (Chinese Academy of Sciences Micro-exepression, 200fps, 280x340 pixels, 5 classes)
*<https://paperswithcode.com/dataset/casme-ii>
- Nexdata/57_Types_of_Micro-expression_Data (Micro-expression video data of more than 2,000 people, including Asian, Black, Caucasian and Brown)
*https://huggingface.co/datasets/Nexdata/57_Types_of_Micro-expression_Data?row=1

Creation of the dataset

- Problematic : How to record real micro expression ?
- Protocol :
 - Find little video which produce several emotions (Disgust, Happiness, Fear, anger, surprise, sadness.)
 - Show this video to people and recording them while keeping their faces neutral when they are watching the video.
 - Classified the videos in categories
 - 5 min of videos for each emotions



Next Step

- Creating the videos
- Starting to record with camera
- Learn more about SNN and how to train a model