

Final Project

□ Action recognition in NTU RGB+D dataset

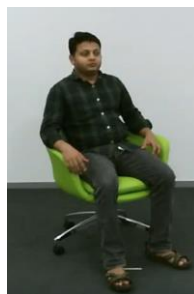
■ **Level 1:** Hand waving



Kicking something



■ **Level 2:** Sit down



Stand up



■ **Level 3:** Reading



Writing



Play with phone



- Given the image sequence and human joints information

■ *.skeleton

第1行為該樣本的幀數

第2行為執行動作的人數

第3行 共有10個數據分別代表'bodyID', 'clipedEdges', 'handLeftConfidence', 'handLeftState', 'handRightConfidence', 'handRightState', 'isResticted', 'leanX', 'leanY', 'trackingState'

第4行代表關節點數

第5-29行為25個關節點的信息，每個關節點有12個數據，分別代表'x', 'y', 'z', 'depthX', 'depthY', 'colorX', 'colorY', 'orientationW', 'orientationX', 'orientationY', 'orientationZ', 'trackingState'

以上為一幀的信息，其他幀都是上述表示方式。

- ❑ Use **one program** to recognize the actions in Level 1-3

[illegible]

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- ❑ Use 'training' data to design your methodology
- ❑ Evaluation
 - Use 14 videos in 'testing' data to evaluate the accuracy of recognition
 - ❑ Level 1: 4 videos
 - ❑ Level 2: 4 videos
 - ❑ Level 3: 6 videos
 - More videos will be announced at 1/12 11:00
 - Evaluation results
 - ❑ Compute **number of accurately recognized videos**
 - ❑ Average computational **time** of each video

	Level 1	Level 2	Level 3	Ratio
Accurate videos in testing data	4	2	0	6/14
Time (sec.)	oo	oo	x	-
Accurate videos in 1/12 data	3	0	0	3/#

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□ Requirements

■ Presentation at 1/12

- Present 5mins., including: flowchart, key methods, **evaluation results**, reference (function, library or paper).
- **Uniqueness** of your work.

■ Upload program and slides to 北科i學園 at 1/12

- Describe the employed source code editor, library, and how to execute your program (input/interface/output)
 - E.g. Identify the version of Visual Studio and OpenCV

■ You can use OpenCV or any other library to complete this project.

- **You can NOT employ the other action recognition trained by NTU RGB+D dataset.**