Additional Material for

# "Action Tube Extraction based 3D-CNN for RGB-D Action Recognition"

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## 1. Per-class accuracies for the OA1/OA2 datasets:

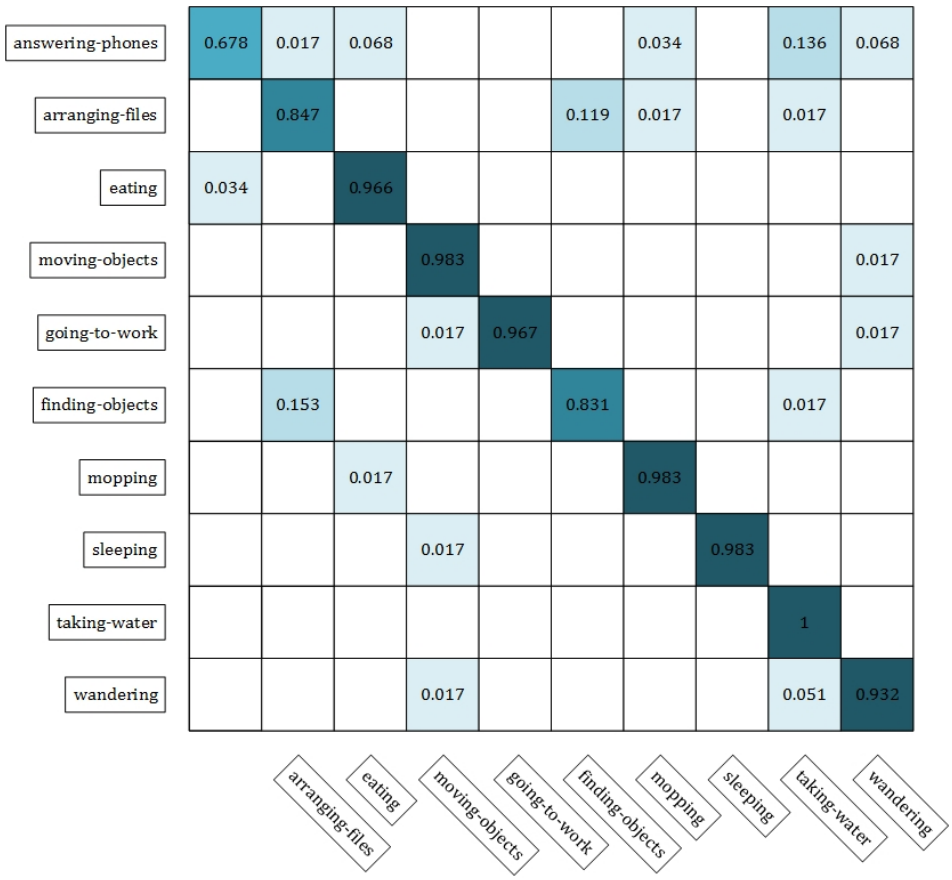
| OA1 – action class | Accuracy | | OA2 – action class | Accuracy |
|---|---|---|---|---|
| answering-phones | 67.8% | | asking-and-away | 75.9 % |
| arranging-files | 84.7 % | | called-away | 87.9 % |
| eating | 96.6 % | | carrying | 87.9 % |
| moving-objects | 98.3 % | | chatting | 67.2 % |
| going-to-work | 96.7 % | | delivering | 63.4 % |
| finding-objects | 83.1 % | | eating-and-chatting | 98.3 % |
| mopping | 98.3 % | | having-guest | 91.4 % |
| sleeping | 98.3 % | | seeking-help | 87.9 % |
| taking-water | 100 % | | shaking-hands | 89.7 % |
| wandering | 93.2 % | | showing | 72.4 % |

## 2. Per-class accuracies for the NTU RGB-D dataset

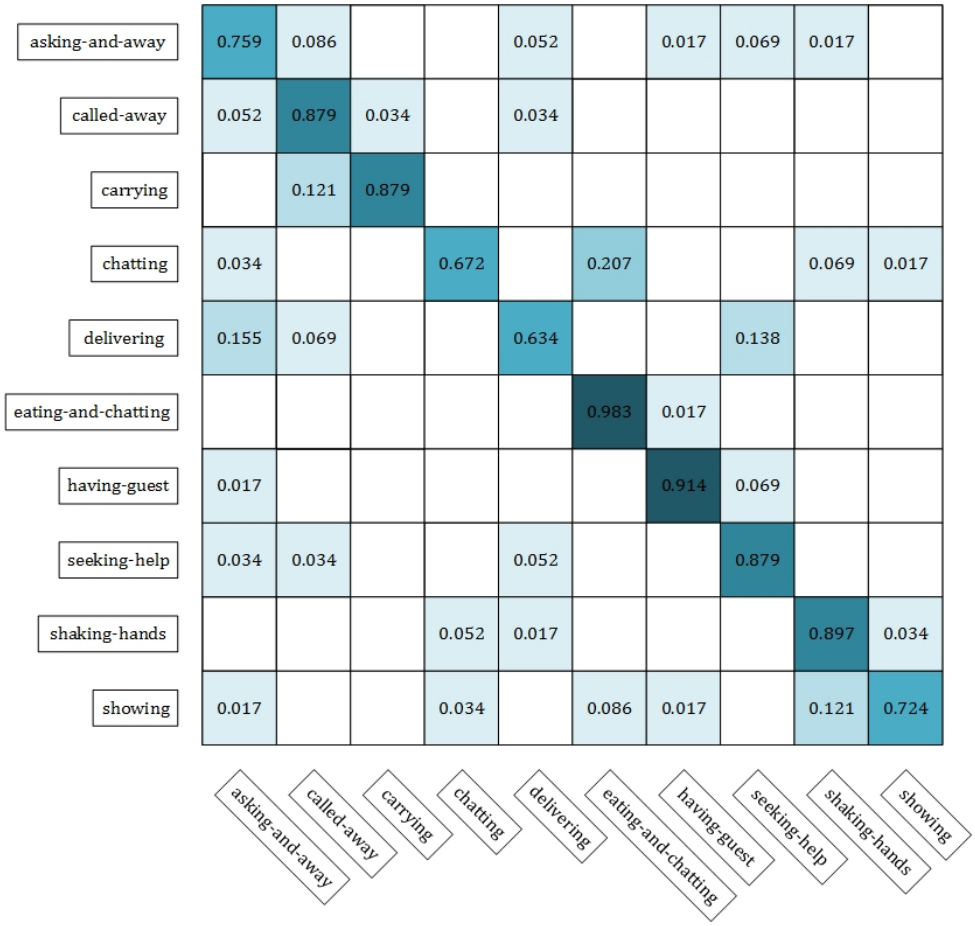
| NTU RGB-D action class | Accuracy |
|---|---|
| drink water | 96.65% |
| eat meal/snack | 80.91% |
| brushing teeth | 87.61% |
| brushing hair | 94.75% |
| drop | 97.38% |
| pickup | 98.46% |
| throw | 92.86% |
| sitting down | 98.55% |
| standing up (from sitting position) | 98.10% |
| clapping | 83.62% |
| reading | 85.88% |
| writing | 85.43% |
| tear up paper | 97.10% |
| wear jacket | 100% |
| take off jacket | 95.93% |

| | |
|---|---|
| wear a shoe | 88.25% |
| take off a shoe | 75.49% |
| wear on glasses | 96.38% |
| take off glasses | 98. 55 % |
| put on a hat/cap | 98. 55 % |
| take off a hat/cap | 97.46% |
| cheer up | 96.29% |
| hand waving | 94.48% |
| kicking something | 96.01% |
| put something inside pocket | 94.13% |
| hopping (one foot jumping) | 96.38% |
| jump up | 99.64% |
| make a phone call/answer phone | 96.74% |
| playing with phone/tablet | 94.48% |
| typing on a keyboard | 96.65% |
| pointing to something with finger | 94.84% |
| taking a selfie | 95.29% |
| check time (from watch) | 97.10% |
| rub two hands together | 87.14% |
| nod head/bow | 96.01% |
| shake head | 100% |
| wipe face | 88.23% |
| salute | 95.20% |
| put the palms together | 89.41% |
| cross hands in front (say stop) | 96.20% |
| sneeze/cough | 82.91% |
| staggering | 98.19% |
| falling | 96.29% |
| touch head (headache) | 86.87% |
| touch chest (stomachache/heart pain) | 96.29% |
| touch back (backache) | 96.38% |
| touch neck (neckache) | 94.84% |
| nausea or vomiting condition | 86.16% |
| use a fan/feeling warm | 85.17% |
| punching/slapping other person | 95.48% |
| kicking other person | 87.87% |
| pushing other person | 96.65% |
| pat on back of other person | 91.22% |
| point finger at the other person | 96.65% |
| hugging other person | 99.64% |
| giving something to other person | 92.94% |
| touch other person's pocket | 97.46% |
| handshaking | 95.29% |
| walking towards each other | 97.83% |
| walking apart from each other | 96.74% |

## 3. Confusion matrices for the OA1 dataset




## 4. Confusion matrix for the OA2 dataset



# 5. Confusion matrix for the NTU RGB-D dataset