

Action Completion: A Temporal Model for Moment Detection Supplementary Material

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For completion, we present the full set of results in two tables.

- Table 1 presents the accuracy for complete and incomplete sequences of the three datasets separately. For the 362 incomplete sequences, across all datasets, the accuracy when using the C-R method is 96.1%. For the 1196 complete sequences, the accuracy when using the C-R method is 85.6%.
- Table 2 shows the RD evaluation measure for the complete and incomplete sequences of the three datasets separately. Again, C-R voting has the lowest RD error with 0.14 for all complete sequences and 0.04 for all incomplete sequences.

			Accuracy						
			No.	Pre-V	V_R^I	C-C	R-R	R-C	C-R
HMDB	catch	complete	99	77.3	79.1	75.9	80.5	76.7	82.3
		incomplete	0	-	-	-	-	-	-
		total	99	77.3	79.1	75.9	80.5	76.7	82.3
	drink	complete	96	76.6	68.5	72.0	77.3	75.3	80.0
		incomplete	4	92.4	87.4	99.5	94.0	88.3	91.7
		total	100	77.3	69.3	73.2	78.0	75.9	80.5
	pick	complete	76	79.4	75.4	78.2	79.4	77.5	82.6
		incomplete	22	84.4	92.0	84.1	81.5	66.4	88.9
		total	98	80.6	79.5	79.7	79.9	74.7	84.2
	pour	complete	98	77.3	68.5	71.9	80.7	79.5	81.9
		incomplete	1	4.5	50.5	2.7	17.1	9.0	22.5
		total	99	76.5	68.3	71.1	80.0	78.7	81.2
	throw	complete	95	67.2	73.3	61.7	74.1	64.9	79.5
		incomplete	3	100.0	95.6	100.0	84.6	86.0	100.0
		total	98	68.7	74.3	63.4	74.6	65.8	80.4
UCF101	basketball	complete	102	84.7	73.1	80.3	79.6	78.2	81.1
		incomplete	32	92.3	93.9	97.7	79.2	82.0	97.8
		total	134	86.5	78.0	84.5	79.5	79.1	85.1
	blowing candles	complete	59	80.3	80.7	78.5	78.4	67.9	84.1
		incomplete	50	94.2	96.8	95.3	90.6	89.7	98.5
		total	109	86.8	88.3	86.4	84.2	78.2	90.9
	frisbee catch	complete	125	81.7	84.1	80.3	78.3	74.6	85.9
		incomplete	0	-	-	-	-	-	-
		total	125	81.7	84.1	80.3	78.3	74.6	85.9
	pole vault	complete	142	85.0	83.3	82.4	88.5	79.8	90.6
		incomplete	3	87.4	81.8	88.5	84.0	92.1	90.9
		total	145	85.0	83.3	82.6	88.4	80.1	90.6
	soccer penalty	complete	95	85.3	83.5	84.4	86.8	83.6	86.9
		incomplete	42	86.0	93.5	88.8	87.7	90.0	92.1
		total	137	85.5	86.6	85.8	87.1	85.6	88.5
RGBD-AC	switch	complete	35	99.8	88.7	99.8	96.3	86.0	98.0
		incomplete	32	100	99.7	100.0	100.0	100.0	100.0
		total	67	99.9	93.9	99.9	98.1	92.7	98.9
	plug	complete	37	96.8	90.0	97.1	92.8	86.3	94.4
		incomplete	36	99.8	96.4	100.0	99.4	100.0	100.0
		total	73	98.3	93.2	98.5	96.1	93.0	97.2
	open	complete	36	84.6	75.3	83.1	86.9	80.3	80.9
		incomplete	32	98.3	98.4	100.0	86.4	80.5	100.0
		total	68	91.1	86.1	91.1	86.7	80.4	89.9
	pull	complete	34	96.4	85.2	95.4	95.4	85.9	95.9
		incomplete	37	98.9	92.6	100.0	92.8	96.7	98.1
		total	71	97.7	89.1	97.8	94.1	91.5	97.0
	pick	complete	33	92.4	83.3	90.9	93.0	76.3	95.4
		incomplete	36	90.7	94.3	89.0	93.4	90.2	94.5
		total	69	91.5	89.1	89.9	93.2	83.6	95.0
	drink	complete	34	89.3	66.3	83.1	92.7	87.9	92.8
		incomplete	32	87.9	92.5	87.6	89.0	83.5	91.3
		total	66	88.6	79.0	85.3	90.9	85.8	92.1
complete			1196	82.3	78.1	79.6	83.1	77.7	85.6
incomplete			362	93.4	94.8	94.3	90.4	88.8	96.1
total			1558	85.0	82.2	83.2	84.9	80.4	88.1

Table 1: Results on 16 actions, comparing frame-level classification, last-frame regression and the four sequence-level voting schemes.

			RD					
			Pre-V	V'_R	C-C	R-R	R-C	C-R
HMDB	catch	complete	0.23	0.21	0.24	0.20	0.23	0.18
		incomplete	-	-	-	-	-	-
		total	0.23	0.21	0.24	0.20	0.23	0.18
	drink	complete	0.21	0.32	0.28	0.23	0.25	0.20
		incomplete	0.38	0.13	0.00	0.06	0.12	0.08
		total	0.21	0.31	0.27	0.22	0.24	0.19
	pick	complete	0.20	0.25	0.22	0.21	0.23	0.17
		incomplete	0.29	0.08	0.16	0.18	0.34	0.11
		total	0.22	0.20	0.20	0.20	0.25	0.16
	pour	complete	0.22	0.31	0.28	0.19	0.20	0.18
		incomplete	0.97	0.50	0.97	0.83	0.91	0.77
		total	0.23	0.32	0.29	0.20	0.21	0.19
	throw	complete	0.33	0.27	0.38	0.26	0.35	0.21
		incomplete	0.00	0.04	0.00	0.15	0.14	0.00
		total	0.32	0.26	0.37	0.25	0.34	0.20
LCF101	basketball	complete	0.19	0.27	0.20	0.20	0.22	0.19
		incomplete	0.27	0.06	0.02	0.21	0.18	0.02
		total	0.21	0.22	0.16	0.20	0.21	0.15
	blowing candles	complete	0.20	0.19	0.22	0.22	0.32	0.16
		incomplete	0.11	0.03	0.05	0.09	0.10	0.02
		total	0.16	0.12	0.14	0.16	0.22	0.09
	frisbee catch	complete	0.24	0.16	0.20	0.22	0.25	0.14
		incomplete	-	-	-	-	-	-
		total	0.24	0.16	0.20	0.22	0.25	0.14
	pole vault	complete	0.19	0.17	0.18	0.12	0.20	0.09
		incomplete	0.18	0.18	0.11	0.16	0.08	0.09
		total	0.19	0.17	0.17	0.12	0.20	0.09
	soccer penalty	complete	0.15	0.17	0.16	0.13	0.16	0.13
		incomplete	0.16	0.06	0.11	0.12	0.10	0.08
		total	0.15	0.13	0.14	0.13	0.14	0.11
RCBD-AC	switch	complete	0.00	0.11	0.00	0.04	0.14	0.02
		incomplete	0.00	0.00	0.00	0.00	0.00	0.00
		total	0.00	0.06	0.00	0.02	0.07	0.01
	plug	complete	0.04	0.10	0.03	0.07	0.14	0.06
		incomplete	0.01	0.04	0.00	0.01	0.00	0.00
		total	0.02	0.07	0.01	0.04	0.07	0.03
	open	complete	0.13	0.25	0.17	0.13	0.20	0.19
		incomplete	0.12	0.02	0.00	0.14	0.19	0.00
		total	0.12	0.14	0.09	0.13	0.20	0.10
	pull	complete	0.05	0.15	0.05	0.05	0.14	0.04
		incomplete	0.14	0.07	0.00	0.07	0.03	0.02
		total	0.10	0.11	0.02	0.06	0.08	0.03
	pick	complete	0.09	0.17	0.09	0.07	0.24	0.05
		incomplete	0.13	0.06	0.11	0.07	0.10	0.05
		total	0.11	0.11	0.10	0.07	0.16	0.05
	drink	complete	0.09	0.34	0.17	0.07	0.12	0.07
		incomplete	0.12	0.08	0.12	0.11	0.17	0.09
		total	0.11	0.21	0.15	0.09	0.14	0.08
complete			0.19	0.22	0.20	0.17	0.22	0.14
incomplete			0.13	0.05	0.06	0.10	0.11	0.04
total			0.17	0.18	0.17	0.15	0.20	0.12

Table 2: Results on 16 actions, comparing frame-level classification, last-frame regression and the four sequence-level voting schemes.