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REU

WEEK 10 PRESENTATION



CFR Dataset

- 15 gesture classes in total
 - 40 examples of each gesture
 - 10 from me, 10 from Jon
 - 10 in the lab, 10 in a study area
- The KT test set
 - 10 examples of each gesture
 - 5 in the lab, 5 in a different study area

Results KT


- Trained on all of CFR, tested on all KT

	Z	S	FS	BS	P	V	St	Tw	R	Ci	Lsb	Rsb	Inf	Ca	Tri
Zorro	0.5	0	0	0	0	0	0	0	0	0.2	0	0	0.3	0	0
S	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Forward_Slash	0	0.7	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Back_Slash	0.1	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0.7	0
Pigtail	0.1	0	0	0	0.1	0	0	0	0	0.2	0	0	0.3	0.3	0
V	0	0	0.1	0	0	0.4	0	0	0	0.4	0	0	0	0	0.1
Stab	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Twist	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Rectangle	0	0.1	0	0	0	0	0	0	0.9	0	0	0	0	0	0
Circle	0	0	0	0	0	0	0	0	0	0.9	0	0	0.1	0	0
Left SB	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Right SB	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Infinity	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Caret	0	0	0	0	0.4	0	0	0	0	0	0.1	0	0	0.5	0
Triangle	0	0.1	0	0	0	0	0	0	0.4	0	0	0	0	0	0.5

0.666666667




Summary

- Finished the gesture classifier
 - Sliding window is done, and is fast
 - Tweaked the features
 - Tweaked the algorithm
 - Obtained results!
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The future

- New features
 - Third time's a charm
 - Improve results
 - Real-time demo
 - Prove antipodal technique mathematically
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Questions?

