We present a novel gesture recognition system that supplements gestural input with database content information to predict database queries.

**Gesture Recognition as Classification**

Classification based solely on proximity is the currently prevalent UI paradigm. By adding compatibility, we are able to increase the likelihood of selecting semantically meaningful queries. Compatibility criteria include schema information like field type, and data distributions, like histograms, extreme values, intersection in random samples, or total intersection. We use a maximum entropy classifier in which we define features of queries, including proximity and compatibility features.

**Preliminary Results**

Information from the schema and data in the database allows our classifier to better predict the intended database query for ambiguous gestures such as JOIN. We present prediction scores for a workload of 15 queries, where 100% represents correct classification at the start of the gesture and 0% represents an incorrect classification even after completion of the gesture.

http://gestureDB.org