Why

A classifier predict one value, for which reason it is sometimes called a *point classifer* or *point predictor*. A natural extension is to ask for an ordered list of classifications.

Definition

A *list classifier* is a function from an input to a list of outputs. For example, if our classifier maps to lists of length three, we may interpret the elements of the list as the classifier's top, second and third ranked guesses.

For an example application, consider a recommendation system. The input is a user query and the output is a list of ordered guesses.

Nearest-neighbor list classifier

List Classifiers

Classifiers

Predictors   Factorials

Sequences   Natural Products

Lists   Natural Sums

Set Numbers   Direct Products

Finite Sets   Recursion Theorem

Equivalent Sets

Function Inverses   Natural Order   Family Unions and Intersections

Function Composites   Function Images   Peano Axioms   Families

Equivalence Relations   Functions

Relations   Natural Induction

Set Products

Set Powers   Natural Numbers   Generalized Set Dualities

Partitions   Unordered Triples   Successor Sets   Intersection of Empty Set   Set Dualities   Set Unions and Intersections

Ordered Pairs   Set Intersections   Pair Unions   Set Complements

Set Unions   Set Differences   Pair Intersections

Unordered Pairs   Empty Set

Set Specification

Set Equality

Set Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Identities   Sets

Names

Letters   Objects