TrekLife

Trekking Experience Predictor – Using decision and utility nodes

Applied Artificial Intelligence - CS514

Project 4

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Abstract:

Trekking experience predictor takes in few aspects of user's data and try to predict the chances or probability of the user having a great trekking experience.

The designed model is a simple Bayesian network having twenty-three nodes and covering few aspects of a good trekking experience.

Features:

- Uses four main modules that is comprised of many other features.
- Two individual modules that directly impact the final decision.
- Four dependent modules: Budget, Fitness, Transport and Utilities.
- Other two modules: Previous Experience and Trekking Passion
- All the major inputs play equal part in producing the output.
- Based on the utility value defined, the decision node decides the best policy whether to take a new trek or not.

Nodes Description:

Nodes	Description
HighStamina	Yes/No value
Uphilltraining	Yes/No value
WeightConcerns	Yes/No value
RecentInjuries	Yes/No value
Fitness	Yes/No value
Income	Yes/No value
Savings	Yes/No value
BudgetConcerns	Yes/No value
Affordability	Yes/No value
Budget	Yes/No value
PreviousExperience	Yes/No value
TheUltimateTrekkingExperience	Yes/No value
Transport	Yes/No value
TravelByBus	Yes/No value
TravelByTrain	Yes/No value
TravelByCar	Yes/No value
TravelByAir	Yes/No value
Utilities	Yes/No value
CampingKit	Yes/No value
FirstAid	Yes/No value
TrekWear	Yes/No value
TrekGear	Yes/No value
Taking_New_Trek	Decision node
Trekking_Satisfaction	Utility node

Usage

Copy the file TrekLife.neta in any location and open the file in Netica. Compile the network and input values by clicking on all the root nodes (node without parents) to see the changes flowing through the Bayesian Network.