Foundations of Game AI

Exercise Session 7

ID3

This week, we will implement the ID3 structure from scratch! Exciting!

ID3 needs a dataset in order to function. For this reason, we will temporarily say goodbye to Pacman, and instead use a League of Legends dataset.

The dataset "*League of Legends Champion Stats 12.4*" contains relevant information about each character (a.k.a. champions) that we can use. One of these information is the TIER that each champion is ranked as: these can be GOD, S, A, B, C, and D.

We will follow the structure of the pseudo-code in the book.

We will also use two very powerful Machine Learning libraries, Pandas and sci-kit learn, for respectively manipulating our data and encoding our information into readable labels by the algorithm. Documentation here: Pandas, scikit-learn.

Open the ID3.py file. The code is documented and explained in depth.

Follow from there.