

1. Python

2. Python机器学习的库：scikit-learn

2.1：特性：

简单高效的数据挖掘和机器学习分析
 对所有用户开放，根据不同需求高度可重用性
 基于Numpy, SciPy和matplotlib
 开源，商用级别：获得 BSD许可

2.2 覆盖问题领域：

分类 (classification), 回归 (regression), 聚类 (clustering), 降维(dimensionality reduction)
 模型选择(model selection), 预处理(preprocessing)

3. 使用scikit-learn

安装scikit-learn: pip, easy_install, windows installer

安装必要package：numpy，SciPy和matplotlib，可使用Anaconda (包含numpy, scipy等科学计算常用package)

安装注意问题：Python解释器版本 (2.7 or 3.4 ?), 32-bit or 64-bit系统

4. 例子：

<i>RID</i>	<i>age</i>	<i>income</i>	<i>student</i>	<i>credit_rating</i>	<i>Class: buys_computer</i>
1	youth	high	no	fair	no
2	youth	high	no	excellent	no
3	middle_aged	high	no	fair	yes
4	senior	medium	no	fair	yes
5	senior	low	yes	fair	yes
6	senior	low	yes	excellent	no
7	middle_aged	low	yes	excellent	yes
8	youth	medium	no	fair	no
9	youth	low	yes	fair	yes
10	senior	medium	yes	fair	yes
11	youth	medium	yes	excellent	yes
12	middle_aged	medium	no	excellent	yes
13	middle_aged	high	yes	fair	yes
14	senior	medium	no	excellent	no

文档：<http://scikit-learn.org/stable/modules/tree.html>

解释Python代码

安装 Graphviz：<http://www.graphviz.org/>

配置环境变量

转化dot文件至pdf可视化决策树：dot -Tpdf iris.dot -o outpu.pdf