Master of Technology

Unit 2/6: Computational Intelligence I

Workshop (5): Titanic Survivor Case Study with Python & Orange3

GU Zhan (Sam)
Institute of Systems Science
National University of Singapore

Objectives

On completion of this workshop, students will

- **have practical understanding on machine learning powered data analysis with Python & Orange3 data mining workflow tools, for Titanic survived passenger case study**
- **conduct exploratory data analysis, machine learning, and evaluations for an end to end data analysis mini project**
- **use and train neural net and support vector machine models from Python scikit-learn library**
- **familiarize and participate in *Kaggle* data science competition to harness computational intelligence technical skills**

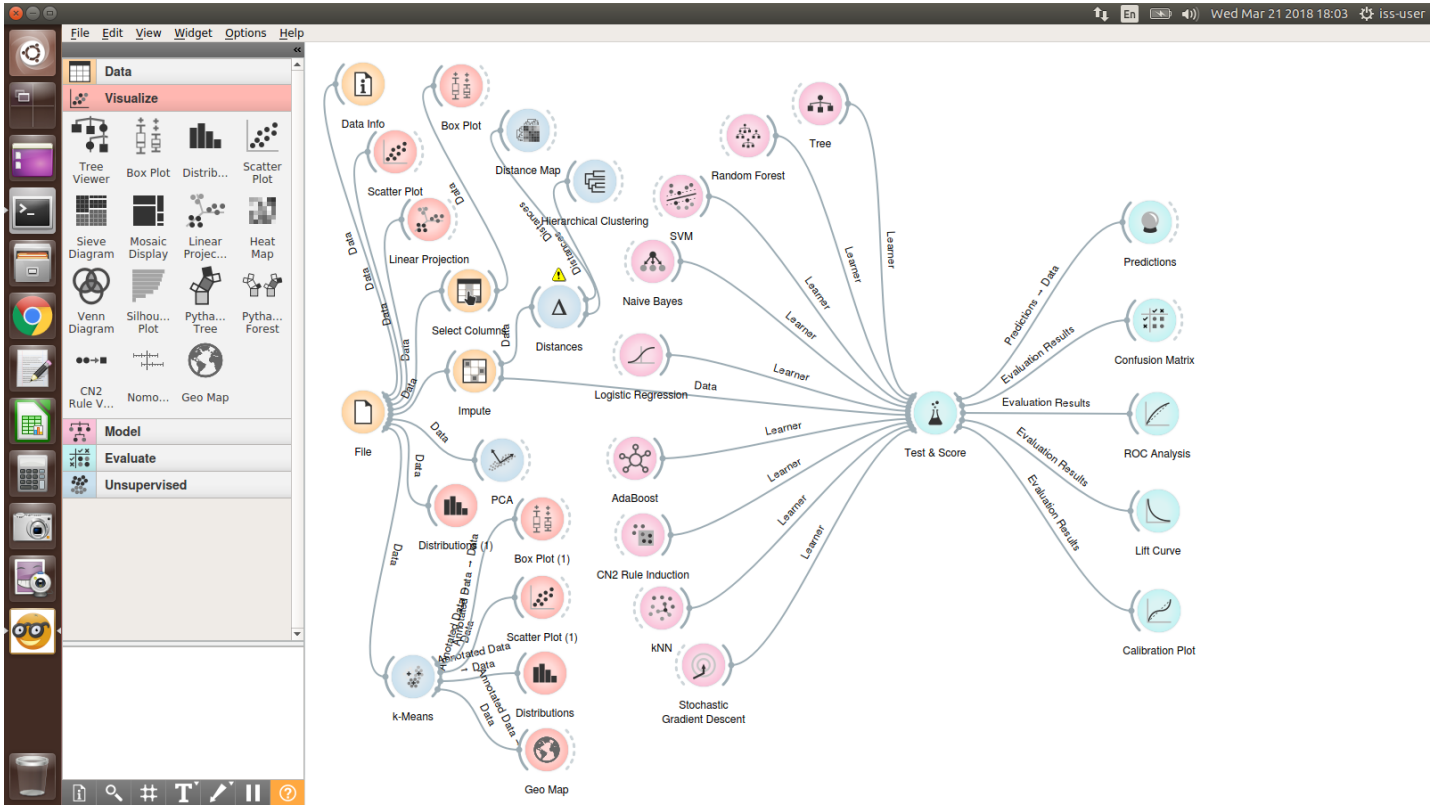
Workshop (5)

1. **Download and install virtual machine iss-vm (25 GB) if necessary**

   http://bit.ly/iss-vm

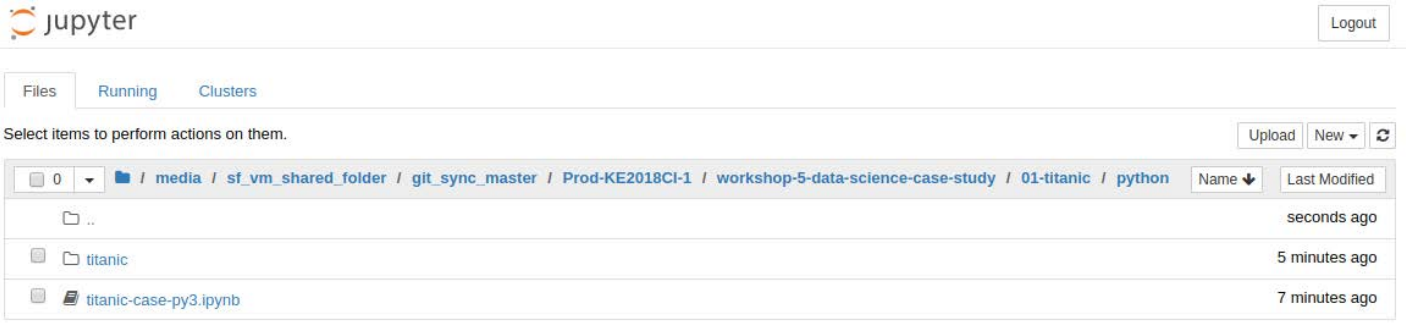
2. **Click 'Tool Python3 Orange' on desktop to start Orange workflow platform: Open**

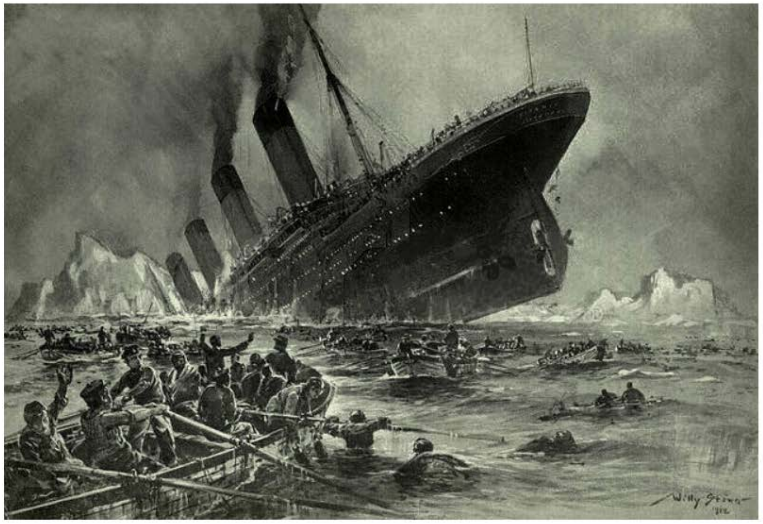
   `workshop-5-data-science-case-study/01-titanic/orange/orange-titanic.ows`



Workshop (5)

3. **Click 'Tool Python3 Jupyter Notebook' on desktop to start Python: Open `workshop-5-data-science-case-study/01-titanic/python/titanic-case.py3.ipynb`**





The sinking of the RMS Titanic is one of the most infamous shipwrecks in history. On April 15, 1912, during her maiden voyage, the Titanic sank after colliding with an iceberg, killing 1502 out of 2224 passengers and crew. This sensational tragedy shocked the international community and led to better safety regulations for ships. https://www.kaggle.com/c/titanic

Workshop (5)

4. **Register Kaggle.com; Participate; Submit to obtain competition Leaderborad Score:**

< Titanic: Machine Learning from Disaster > https://www.kaggle.com/c/titanic/