IMSM
Institute for Interactive Marketing & Social Media

ANNOUNCEMENT

BACHELOR THESIS

KEYWORDS

- Data Analysis
- Python
- Machine Learning

TOPIC: DATA ANALYSIS AND MACHINE LEARNING APPLICATION TO A BANK'S TELEMARKETING CAMPAIGN

Data generated by humanity has increased every single day along with the number of Internet users, reaching 56.1% of the world population as of January 2019 . These users generate 1.7 MB of data every second in 2020 (Domo, 2019). In marketing, machine learning is used more and more to model consumer behavior and improve performance of marketing operations based on these large amounts of data (Cui et al., 2006).

Using telemarketing data from a Portuguese bank (click here to see the dataset and applying machine learning techniques, the aim of this thesis therefore is to predict, which customers subscribe a deposit based on 37.000 phone calls. To answer this question, the student is expected to apply (a) Linear models, (b) Support vector machines, (c) Gradient boosting techniques, and (d) Neural networks. Supported by us, the student will need to make herself/himself familiar with the following Python packages: (a) numpy, (b) pandas, (c) matplotlib and/or seaborn, and (d) scikit-learn.

LITERATURE & LINKS:

Domo (2019). Data never sleeps 7.0. [Online] Available: https://www.domo.com/learn/data-never-sleeps-7

Cui G., Wong M.L. and Lui H.K.(2006). Machine Learning for Direct Marketing Response Models: Bayesian Networks with Evolutionary Programming, Management Science, Vol:52 No: 4, pp. 597-612

SUPERVISOR:

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- Prof. Dr. Nadia Abou Nabout: https://www.wu.ac.at/en/imsm/about-us/team/nadia-abou-nabout/

APPLICATIONS:

Applications with CV and transcript of records should be sent to Uğurcan Dündar (ugurcan.duendar@wu.ac.at).

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