Forces Defining Healthy Food

DATA SCIENCE PROJECT AT HERUS LAB - SEMESTER PROJECTS / MASTER THESIS

The HERUS Lab at the École Polytechnique Fédérale de Lausanne is looking for exceptional candidates for a Data Science Project that consists in the modeling and analysis of Swiss urban systems through data of insurance costumers over the last 10 years.

PROJECT DESCRIPTION:

Using Twitter data, we aim to model the formation of public opinion on the definition of “healthy food”, with the focus on (1) different actors shaping the conversation, (2) community structure of the users involved, (3) motivations or triggers for tweeting about more healthy diets; and (4) the dynamics of the public opinion in the past two years (2017-2018). In particular, the actors we will track include corporate interests, governmental agencies, news sources, scientific literature, and other parties interested in swaying public opinion (including misinformation). Within the community, we will ascertain the cohesiveness and structure of the users involved in the conversation, the opinions expressed by these communities, and the dynamism of its membership. The propagation of information and opinions will be examined, with the focus of most successful targeting approaches. Attitudes around GMO foods specifically will be examined as a case study. The final aim is to produce insights helpful for public health policy makers in effective communication strategies in social media.

REQUIREMENTS:

The successful candidates should have knowledge of physics, mathematics, computer science, engineering, computational sociology (social network analysis), or a related field. Candidates with an interdisciplinary mathematical modeling background are also given particular attention. Ability of working in a multidisciplinary team environment, problem solving skills and high creativity are very welcome.

- Practical skills in Python are expected.
- Basic knowledge of statistics is expected
- Experience in Machine Learning and Natural Language Processing is a plus

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