Issue 1: Prediction of patient's re-access to the healthcare system

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SOS Médecins is a medical GP emergency service of France. Every day they conduct tens of thousands consultations. *Anosos* is an anonymous version of their consultation database which contains millions of entries including physiological data (temperature, tension,...) and raw text.

ISME is a project between the LIG (Laboratory of Informatics in Grenoble, teams GETALP and MRIM), the faculty of medicine of Grenoble and SOS médecins, which aims at exploiting *Anosos* in order to improve diagnosis and patient pathway.

The main objective of this internship is to identify patients with a high risk of new request of access to the healthcare system, either hospital, emergency department or doctor's appointment. Patient identified could be eligible to a specific preventing medical management to improve their health problem management. Though, care and costs could be improved. One major task is to find groups of patients who request an emergency visit after a certain period (in the next month, in the next 6 months, in the next week, in the next 4 weeks).

Task :

- a state-of-the-art of supervised machine learning methods including new deep neural methods
- implementation of the main methods using an appropriate framework
- conception and implementation of deep neural networks

Publication of results in major conferences/journals will be strongly encouraged.

ISME : IA straightening medical experience
GETALP : Study Group for Machine Translation and Automated Processing of Languages and Speech
MRIM : Multimedia Information Modeling and Retrieval

References :

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