24 months Post Doc position deep learning for cancer research

Project motivation

The growing life expectancy in developed countries has led to an alarming rise in cancer cases among the elderly. Age is a significant risk factor, with cancer incidence 10 times higher in patients over 65 years old. Sadly, limited clinical studies focus on elderly patients due to exclusion criteria, resulting in suboptimal treatment decisions. Embracing the power of AI, we aim to enhance early detection, diagnosis, and treatment prediction in oncology, particularly for the elderly population.

Project Objectives

Join us in leveraging advanced Machine Learning and Deep Learning techniques to analyze clinical data and healthcare reimbursement records from the French Cancer Data Platform (INCA). Our objective is to construct comprehensive temporal profiles for patients, considering clinical characteristics, treatment history, comorbidities, and care utilization using cutting edge deep learning models such us AED and transformers. The study will specifically focus on patients aged 70 and above receiving care at the Institut Paoli-Calmette in Marseille. By developing predictive algorithms, we strive to improve treatment response predictions for elderly cancer patients, thus enhancing their medical care.

Research Team: Collaborate with the esteemed Sesstim researchers and oncologists at Marseille's Cancer Hospital, IPC. Our multidisciplinary team consists of data scientists, medical professionals, and statisticians. As a postdoctoral researcher, you will receive direct supervision Raquel Urena,associate professor and AI specialist and A.D. Bouhnik biostatistician and specialist in Cancer research along with oncologists and public health doctors. Your primary location will be the Faculty of Medicine in Marseille.

Skills

- PhD in Artificial Intelligence or Computer Science
- MS degree in Computer Science, Statistics, Maths or related discipline
- Strong publication record in deep learning and machine learning
- Proficiency in Python and R programming
- In-depth knowledge of machine learning, deep learning methodologies and LLM
- Solid understanding of SQL databases
- Fluent in French and English

Contract

- Before January 2024 (depending on candidate availability)
- Duration: 24 months
- Salary: Postdoc statutory salary determined by Aix Marseille University

Application

Interested candidates are invited to email their CV and a motivation letter to Raquel.urena@univ-amu.fr.
Application deadline: **July 30, 2023**