Post-doctoral position: predictive modeling of malt quality starting from properties of barley

Candidate description

The ideal candidate has obtained a PhD in computer science, applied mathematics, or other related field. Basic proficiency with machine learning and Python is a must. Knowledge of French is not mandatory, but a plus.

Job description

In the scope of the PROSIT-2 project, the candidate will work on real-world data coming from barely, collected over the course of several years. The objective is to develop interpretable, predictive machine learning models of the quality of malt starting from measurements of barley. The transformation process of barley into malt is extremely complex, including both chemical and mechanical steps, so it is notoriously difficult to characterize resorting to mechanistic models. The machine learning models will be validated by experts of the transformation process.

Workplace

The UMR MIA Paris-Saclay, associated with the supervisory bodies AgroParisTech, INRAE and Université Paris Saclay, brings together statisticians and computer scientists specializing in statistical and computational modeling and learning for biology, ecology, the environment, agronomy and the agri-food sector. Their expertise covers statistical inference methods (complex models, latent variable models, Bayesian inference, learning, model selection, etc.) and algorithmic methods (generalization, domain transfer, knowledge representation).

The EkINocs team's research activities are dedicated to data science methodologies, particularly machine learning and knowledge engineering, and to interactive modeling with experts in the fields studied.

Salary and working conditions

Salary depends on experience, following French salary grids for CR CDD. INRAE employees enjoy several benefits, listed in the job description on jobs.inrae.fr