

Scientific Competitions in AI: Measuring and Understanding Participant Engagement

Scientific competitions in artificial intelligence (e.g. Kaggle) have become key spaces for innovation and learning. They allow researchers and students to work on the same problem—individually or in teams—within a collaborative yet competitive framework. However, while these competitions are widely used in the scientific community, their actual impact on learning, engagement, and scientific output remains largely unexplored. Understanding these mechanisms is essential to optimize the contribution of such competitions to academic research, particularly in the life sciences.

This internship is part of the MIAI SCALER Chair (Scientific Competitions for Advancing Learning and Enhancing Research in Life Sciences), an interdisciplinary project combining education sciences, statistics, and life sciences.

The internship may lead to PhD funding.

Internship objectives

1. Study the impact of individual participant variables (e.g., error perception, level of expertise) on task engagement, using real and simulated data.
2. Design an experimental plan for future data collection and identify additional variables of interest (e.g., participants' cognitive load during the task).
3. Propose new metrics to assess these variables of interest within scientific competitions.

Candidate profile

We are looking for a motivated student interested in learning processes (cognitive dimension) and interdisciplinary research. A strong interest in pursuing a PhD will be highly appreciated.

Required skills:

- Proficiency in statistical approaches for data analysis
- Good command of R and/or Python
- Strong skills in scientific English (written and spoken)
- Organizational and synthesis abilities
- Good communication and teamwork skills
- Interest in cognitive sciences or education sciences
- Interest in life sciences

Supervision

- Salomé Cojean, Associate Professor in Education Sciences (LaRAC)
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- Magali Richard, Researcher in Computational Biology (Laboratoire d'Informatique de Grenoble)

To apply, please send your CV and cover letter to:

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