

Application BASTRI

Fiches Equipes

MAASAI (SR0890WR)

Modèles et algorithmes pour l'intelligence artificielle
MAASAI

Statut: Décision signée

Responsable : Charles Bouveyron

Mots-clés de "A - Thèmes de recherche en Sciences du numérique - 2024" : A3.1. Données , A3.1.10. Données hétérogènes , A3.1.11. Données structurées , A3.4. Apprentissage et statistiques , A3.4.1. Apprentissage supervisé , A3.4.2. Apprentissage non supervisé , A3.4.6. Réseaux de neurones , A3.4.7. Méthodes à noyaux , A3.4.8. Apprentissage profond , A9. Intelligence artificielle , A9.2. Apprentissage

Mots-clés de "B - Autres sciences et domaines d'application - 2024" : B3.6. Ecologie , B6.3.4. Réseaux sociaux , B7.2.1. Véhicules intelligents , B8.2. Ville connectée , B9.6. Sciences humaines et sociales

Domaine : Mathématiques appliquées, calcul et simulation

Thème : Optimisation, apprentissage et méthodes statistiques

Période : 01/02/2020 -> 31/12/2027

Dates d'évaluation : 01/12/2022

Etablissement(s) de rattachement : UNICA

Laboratoire(s) partenaire(s) : I3S, LJAD (UMR7351)

CRI : Centre Inria d'Université Côte d'Azur

Localisation : Centre Inria d'Université Côte d'Azur

Code structure Inria : 041165-0

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N° de structure Inria: SR0890WR

Présentation

Maasai is a research project-team at [Inria Sophia-Antipolis](#), working on the models and algorithms of Artificial Intelligence. This is a joint research team with the laboratories [LJAD \(Mathematics, UMR 7351\)](#) and [I3S \(Computer Science, UMR 7271\)](#) of [Université Côte d'Azur](#). The team is made of both mathematicians and computer scientists in order to propose innovative learning methodologies, addressing real-world problems, that are both theoretically sound, scalable and affordable.

Axes de recherche

Artificial intelligence has become a key element in most scientific fields and is now part of everyone life thanks to the digital revolution. Statistical, machine and deep learning methods are involved in most scientific applications where a decision has to be made, such as medical diagnosis, autonomous vehicles or text analysis. The recent and highly publicized results of artificial intelligence should not hide the remaining and new problems posed by modern data. Indeed, despite the recent improvements due to deep learning, the nature of modern data have brought specific issues. For instance, learning with high-dimensional, atypical (networks, functions, ...), dynamic, or heterogeneous data remains difficult for theoretical and algorithmic reasons. The recent establishment of deep learning has also open new questions such as: How to learn in an unsupervised or weakly-supervised context with deep architectures? How to design a deep architecture for a given situation? How to learn with evolving and corrupted data?

To address these questions, the Maasai team focuses on topics such as unsupervised learning, theory of deep learning, adaptive and robust learning, and learning with high-dimensional or heterogeneous data. The Maasai team conducts a research that links practical problems, that may come from industry or other scientific fields, with the theoretical aspects of Mathematics and Computer Science. In this spirit, the Maasai project-team is totally aligned with the "Core elements of AI" axis of the [Institut 3IA Côte d'Azur](#). It is worth noticing that the team hosts two 3IA chairs of the Institut 3IA Côte d'Azur.

Relations industrielles et internationales

Contact

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En savoir plus

- Site de l'équipe
- Site sur [inria.fr](#)
- Site du [responsable](#)
- Derniers Rapports d'Activité : [2020](#) , [2021](#) , [2022](#) , [2023](#)

Documents sur la structure

- [Intranet](#)
- [Privés](#)

Décisions

- [14109](#) (27/01/2020) : création
- [15814](#) (29/11/2022) : prolongation
- [16728](#) (04/01/2024) : prolongation

Localisation

- **Adresse postale :** Centre Inria d'Université Côte d'Azur 2004 Route des Lucioles - BP 93 06902 Sophia Antipolis cedex France
- **Coordonnées GPS :** 43.616, 7.068

The team is collaborating with several team and universities abroad, such as University Dublin College, University of Washington, Technical University of Denmark or Université Laval Québec. The team is also deeply involved in collaborations with industry, through CIFRE Ph.D. in particular.