USDAI 2020 - Call for papers

1st International Workshop on Underpinnings for Safe Distributed AI
15th September 2020, Online, in conjunction with SAFECOMP2020

Workshop theme:
Enabling technologies and regulatory frameworks for safe distributed AI

Safe distributed artificial intelligence (AI) requires a reliable and secure underpinning and Europe needs to develop its own capabilities in this area as witnessed by the increasingly frequent calls for a "European digital sovereignty". This will involve a significant effort to develop the required enabling technologies. Furthermore, to protect the investments made, it must be ensured that these technologies provide value for the involved stakeholders as well as society in general and create a lasting impact.

There are several ways in which to achieve the distribution of AI, but in all cases the right algorithms must meet the right data – and this must happen at the right moment if the application is time-critical. Similarly, in order to learn from distributed "experiences", distributed learning approaches (federated, or central with redistribution of results) are needed.

The basic challenges to achieve safe distributed AI therefore include data collection, local processing and reliable transport, as well as the orchestration of distributed algorithms, all in a reliable and secure manner and in a way that respects the privacy of users, operators and the general public.

This workshop will address a wide range of enabling methods and technologies to ensure trustworthiness of data as well as the processing and use of the resulting information. Topics will range from advanced computational methods to the legal and regulatory frameworks in which they must function. There will be a session open for presenters to pitch project ideas for further work on the topics related to the workshop theme.

Article submissions are welcome that relate to:

- *Data collection, transport and storage for safe distributed AI*
  - *Sensing and initial data analytics on the end node*
  - *Data transport for AI between distributed nodes and the cloud*
- *Data processing and analytics for safe distributed AI*
  - *Safe and reliable data processing and machine learning in hardware and software*
  - *Methods for traceability, accountability and explainability in AI*
- *Safe and reliable actuation based on AI control systems*
- *Secure DevOps for safe distributed AI*
- *Application-level considerations of distributed AI in relevant fields such as healthcare, mobility, manufacturing, space, etc.*
- *Considerations related to schemes for approval, qualification and certification of distributed AI*
- *Legal and regulatory issues regarding distributed AI, including but not limited to issues concerning privacy and data protection, intellectual property, freedom of expression, cybersecurity, liability (e.g. in relation to autonomous cars, drones, and robots), competition, consumer protection, equality and discrimination, healthcare, internet of things, smart offices and cities, energy, and the environment.*

The aim is to unite academic research with industrial research and development in order to explore options for application-oriented uptake of new technologies in the field of safe distributed AI.

All papers will be reviewed by at least three reviewers. Workshop proceedings will be provided as complementary book to the SAFECOMP Proceedings in Springer LNCS. Please keep your paper format according to SPRINGER LNCS style guidelines (http://www.springer.com/computer/lncs?SGWID=0-164-6-793341-0). Papers (8 pages or more) will be reviewed by at least three reviewers.

Submission is via EasyChair: https://easychair.org/conferences/?conf=usdai2020

Tentative Deadlines

Full paper submission: ~~11th May 2020~~ extended to: 15th May 2020
Notification of acceptance: 29th May 2020
Camera-ready submission: 10th June 2020

Programme committee
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