Call for Contributions for Submission: 1. Inform the Chair: with the Title of your Contribution 2. Submission URL: https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=SECURWARE+2019+Special Please select Track Preference as PriMal

Special track

PriMal: Privacy for High-Utility Machine Learning

Chair and Coordinator

Dr. rer. nat. Christoph Stach, Universität Stuttgart, Institut für Parallele und Verteilte Systeme (IPVS), Deutschland <u>Christoph.Stach@ipvs.uni-stuttgart.de</u>

along with

SECURWARE 2019, The Thirteenth International Conference on Emerging Security Information, Systems and Technologies <u>http://www.iaria.org/conferences2019/SECURWARE19.html</u> October 27, 2019 to October 31, 2019 - Nice, France

Machine Learning (ML) and data mining provide the foundation for a vast number of *smart* applications today. For this purpose, a large amount of partly private data is captured by sensors, pre-processed by data stream systems and stored in databases. Machine learning and data mining approaches then learn models from these data. By applying these models to real time data, *smart* applications are able to predict and adapt to future requirements. Such applications are a substantial benefit for the user. However, to enable *smart* applications, a large amount of data is required in the first place. Only if the data quality is sufficient, accurate models can be learned and sound predictions can be made. Yet, there is a growing concern on the part of users regarding the large-scale processing of private data. In addition, new regulations such as the General Data Protection Regulation (GDPR) restrict this kind of data processing even further. Today's data privacy approaches affect data quality and data quantity severely so that the utility of machine learning and data mining suffers sustainably.

The PriMaL Special Track, therefore, concerns with novel approaches that guarantee privacy in machine learning applications without restricting their utility unnecessarily. This track aims at providung a forum to discuss recent advancements, exchange ideas and share experiences on new issues and challenges in the context of privacy for high-utility machine learning.

Topics include, but not limited to:

- Novel privacy approaches for machine learning applications
- Architectures supporting privacy-aware machine learning
- Privacy-preserving model generation
- Differential privacy
- Misuse of machine learning
- Understandable preparation of decisions based on machine learning
- GDPR-conform machine learning approaches

• Experience reports on privacy-aware machine learning

Important Datelines

Inform the Chair: As soon as you decide to contribute Submission: August 31 Notification: September 20 Registration: September 30 Camera-ready: September 30

Contribution Types

- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on www.iaria.org]
- Presentations: slide only [slide-deck posted on www.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Paper Format

- See: <u>http://www.iaria.org/format.html</u> [both LaTex and .doc templates]
- Before submission, please check and comply with the editorial rules: http://www.iaria.org/editorialrules.html
- More information on camera ready preparations will be posted after the paper notifications are sent out.

Publications

- Extended versions of selected papers will be published in IARIA Journals: http://www.iariajournals.org
- Print proceedings will be available via Curran Associates, Inc.: http://www.proceedings.com/9769.html
- Articles will be archived in the free access ThinkMind Digital Library: <u>http://www.thinkmind.org</u>

Paper Submission

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Registration

- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.

- Registration fees are available at http://www.iaria.org/registration.html

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