Workshop Artificial Intelligence for Edge Computing

Abstract:

Edge Computing is a new computing paradigm where server resources, ranging from a credit-card size computer to a small data center, are placed closer to data and information generation sources. Application and systems developers use these resources to enable a new class of latency and bandwidth sensitive applications that are not realizable with current cloud computing architectures. Edge computing represents a counterpoint to the consolidation of computing into massive data centers, which has dominated the discourse in cloud computing for well over a decade. Popular terms such as micro-data centers, intelligent edges, cloudlets, and fog have been used interchangeably to describe edge computing.

Artificial intelligence techniques can be applied in the edge computing to develop some various smart systems it includes smart city and smart home, smart grid, smart industry, smart vehicle, smart health, and smart environmental monitoring. New AI and ML real time or execution time algorithms are needed, as well as different strategies to embed these algorithms in edges. New clustering and classification techniques, reinforcement learning methods, or data quality approaches are required, as well as distributed AI algorithms.

The aim of this workshop is to offer a forum for exchanging and proposing new ideas and techniques related with the design and usage of artificial intelligence techniques in edge computing. More specifically, we invite recent advanced research on artificial intelligence techniques privacy enhancing technologies and secure cryptographic techniques to address performance and security challenges in the field of edge computing.

Scope and Topics:

Potential topics include but are not limited to:
- AI for smart data storage in edge computing
- Intelligent real-time big data analytics, processing, and storage in edge computing
- Intelligence image processing algorithms for Edge computing.
- Intelligent algorithms for edge computing
- Artificial Intelligence models for edge computing
- Machine learning for edge computing
- Automated reasoning and inference for edge computing
- Clustering and classification algorithms for Edge computing.
- Deeping learning and reinforcement learning for edge computing
- Expert systems and Hybrid systems for Edge computing

- ✧ Multi-agent systems for edge computing
- ✧ Distributed systems design for AI in edge computing
- ✧ Intelligent resource scheduling and management in edge computing
- ✧ Novel applications and experiences with edge computing
- ✧ Intelligent real time algorithms for edge computing.
- ✧ Intelligent security proposals for edge computing.
- ✧ Blockchain in edge computing.
- ✧ Applications of AI for security and privacy in edge computing

Important Date

Paper Submission Due: November 10, 2020
Notification of Acceptance: December 1, 2020
Registration Due: December 17, 2020
Camera-Ready Paper Due: December 31, 2020
Conference Date: July 26-28, 2020

Publication

Outstanding papers will be invited for possible publication in SCI-indexed journals.
All accepted papers will be published in LNCS and other journals.

Program Committee Chairs:

Fang Liu, Hunan University, China
Zhiping Cai, National University of Defense Technology, China
Zhiyao Liang, Macau University of Science and Technology