





Healthcare Information Systems: AI in processing Big Data with Privacy Preserving Techniques

HYBRID WORKSHOP

Location: University of Novi Sad, Dr Zorana Đinđića 1, Novi Sad, Room: I-16

Date: February 7, 2023, 10.00 CET

Online Workshop Link:

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Agenda

10:00-10:10 / Introduction-Welcome

Mirjana Ivanovic

Full Professor / Faculty of Sciences, University of Novi Sad, Novi Sad, Serbia

10:10-10:30 / Overview of Contemporary Healthcare IT systems

Serge Autexier

Technical Coordinator, DFKI

10:30-11:00/ Data Management from HIS Standard to ML Appropriate Format

Johannes Rust

Researcher / Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI), Bremen, Germany

11:00-11:30 / Machine Learning in Processing Health Data and Predictive Models

Vladimir Kurbalija

Full Professor / Faculty of Sciences, University of Novi Sad, Novi Sad, Serbia

Mirjana Ivanović

Full Professor / Faculty of Sciences, University of Novi Sad, Novi Sad, Serbia

11:30 - 11:45 Coffee Break

11:45 -12:15 / Simulations, Predictions and Explainable Artificial Intelligence

Serge Autexier

 $A SCAPE\ Scientific-Technical\ Project\ Manager\ /\ Deutsches\ Forschungszentrum\ f\"ur\ K\"unstliche\ Intelligenz\ (DFKI),\ Bremen,\ Germany\ Manager\ /\ Deutsches\ Forschungszentrum\ f\'ur\ K\"unstliche\ Intelligenz\ (DFKI),\ Bremen,\ Germany\ Manager\ /\ Deutsches\ Forschungszentrum\ f\'ur\ K\"unstliche\ Intelligenz\ (DFKI),\ Bremen,\ Germany\ Manager\ /\ Deutsches\ Forschungszentrum\ f\'ur\ K\'unstliche\ Intelligenz\ (DFKI),\ Bremen,\ Germany\ Manager\ /\ Deutsches\ Forschungszentrum\ f\'ur\ K\'unstliche\ Intelligenz\ (DFKI),\ Bremen,\ Germany\ Manager\ /\ Deutsches\ Manager\ /\ Manager\ /\ Deutsches\ Manager\ /\ Deutsches\ Manager\ /\ Deutsches\ /\ Manager\ /\ Manage$

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12:15-12:35/ Federated Learning and its Role in Health Distributed Information System - General Approach and Implementation

Mihailo Ilić

Researcher / Faculty of Sciences, University of Novi Sad, Novi Sad, Serbia

Marko Otlokan

Researcher / Faculty of Sciences, University of Novi Sad, Novi Sad, Serbia

12:35 -12:55/ Homomorphic Encryption and Global Homomorphic Models

Anamaria Vizitiu

Researcher / SIEMENS SRL, BUCURESTI, Romania

Ioana Ciangau

Researcher / SIEMENS SRL, BUCURESTI, Romania

12:55-13:55/ Related Approaches in Shaping Future Healthcare Information Systems

"Shaping Future of Post-cancer Management through AI at the Edge", Philip O'Brien, Christine O'Meara, Walton Institute for Information and Communication Systems Science (FAITH)





"Supporting older cancer survivors with AI and Big Data: The LifeChamps project", Prof. Panagiotis Bamidis, Dr Antonis Billis, Lab of Medical Physics and Digital Innovation, School of Medicine, Aristotle University of Thessaloniki, (LifeChamps)

"In Silico trials for drug tracing the effects of sarcomeric protein mutations leading to familial cardiomyopathy", Prof. Nenad Filipovic, Bioengineering Research and Development Center–BiolRC, Serbia (SILICOFCM)

13:55 - 14:30 Discussion - closing