

The Seminars on “Information Technology Outlook” – PhD Program in Computer Science and Mathematics



Prof. Agnieszka Jastrzebska

Associate Professor
Faculty of Mathematics and Information Science
Warsaw University of Technology
Warsaw, Poland

Thursday 20, 2024
11:00



Aula Magna
Dept. of Computer Science

Time series classification: an outline of the domain

Time series classification is a vibrant domain of machine learning, in which the basic research task deals with the development of new algorithms that attach class labels to time series based on information previously seen in a training set. We can roughly say that the flow of the classification process starts with raw data, which may be optionally transformed (for instance, to symbols). Then, the data is subjected to a feature extraction process, which is the core point distinguishing various classification methods. A frequently seen strategy is to extract features from segments of data. After feature extraction, we train a classifier. There are multiple interesting methods in this domain. In my presentation, I will discuss selected techniques which utilize fuzzy sets. I will also present current advancements concerning techniques for generating explanations for classifier’s decisions.

Agnieszka Jastrzębska received her PhD degree in Computer Science in 2016 from the Warsaw University of Technology (Poland) and DSc degree (habilitation) in 2021 also from the Warsaw University of Technology. She has been employed at the Faculty of Mathematics and Information Science WUT since year 2011. Her current position is Associate Professor. Her research focuses on machine learning for temporal data analysis. She has published several journal papers on time series analysis.

Agnieszka Jastrzębska is Associate Editor at Applied Soft Computing Elsevier’s journal. She has also coordinated one state-funded project on macroeconomic data analysis in years 2019-2023. At the moment she is leading a small research group, in which she supervises two PhD candidates and one research assistant.