



Contribution ID: 109

Type: **not specified**

Guest talk: Industrial applications of data science

Friday 4 September 2020 09:45 (45 minutes)

Disease diagnostic, biomarkers discovery, drugs development, personalized medicine, land cover mapping, biodiversity conservation, predictive maintenance, product development, process optimization, autonomous driving, smart mobility –building - factory, fraud detection, recommendation systems etc. –this is an extremely short list of applications where data science plays an essential role. Data science touches all economic sectors and is truly impacting almost every aspect of our everyday life.

This vast diversity of applications can be narrowed down to much smaller set of tools and methods that provide with more or less standard solutions to the very wide range of real life challenges. This is the role of a data scientist who works hand in hand with a domain expert to tailor the optimal solution for the goal in mind.

In the industrial sector, data is generated in all areas of activity and all industries, from the hiring process, to the development and production of a product (a product can be a car, an assurance policy, a medical prescription, a market survey etc.) to the customer itself. Of much importance for most industries is also the data generated during the entire life cycle of the products, extremely valuable in order to design better products. The role of a data scientist is to extract knowledge from data by means of standard algorithms and methods and to create new assets for the business. We propose to showcase the variety of use cases issued from the manufacturing industries paired with similar use cases from other application areas. For example a comparison of image processing in medical imaging vs. automated optical inspections on manufacturing lines, recommendation systems in manufacturing vs recommendation systems in E-commerce or application of statistical tests for biomarkers discovery vs. root cause analysis of failures on a production line.

Summary

Presenter: LAZAR, Cosmin (Bosch)