

The 4th International Forum
BIG DATA DAY BAKU 2018

ADA University
Azerbaijan, Baku, 19 May 2018
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SUMMARY REPORT

4TH INTERNATIONAL FORUM **BIG DATA DAY** - BAKU 2018 -

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19 MAY, 2018
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transforming Big Data into Big Value

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BIG DATA DAY BAKU 2018



The Internet Services, Web and Mobile Applications, Pervasive Communication widely available today that are meeting many of our needs have stimulated production of tremendous amounts of data (call metadata, texts, emails, social media updates, photos, videos, location, etc.). Even with the enourmous power of today's modern computer systems, businesses and government organizations continue to face huge challenges to manage, search, analyze, and visualize the vast amount of data residing across multiple datasources and transform data to valuable information and intelligence to support data-driven decision making. Over 90% of this information is unstructured what means data does not have predefined structure and model. Generally, unstructured data has a little value unless appropriate data mining and analysis techniques are applied to extract useable information and insights that may hold huge value.

The 4th International Forum "Big Data Day Baku 2018" (BDDB2018) is the data-centric event under the theme "**Transforming Big Data into Big Value**" held in Baku, Azerbaijan, 19 May 2018 hosted by the ADA University organized by the Center for Data Analytics Research in partnership and co-operation with local and international Data-driven and Big Data companies with support of the IEEE Communication Society and Computer Society Azerbaijan Chapters. The event's main goal is to increase public awareness of new opportunities and challenges brought by Big Data and Analytics, share experience with industry and government on the development of state-of-the-art Data Analysis technologies, attract youth to make career and do outstanding research in Data Science.

CONFERENCE SCOPE

Following topics were covered:

- Big Data Architecture, Open Platforms and Toolkits
- Big Data Analytics, Modeling and Visualization
- Big Data As A Service (BDAAS)
- Big Data for Enterprise Transformation
- Big Data in cross-Disciplinary Research
- Big Data in Smart-City Solutions
- High Performance Computing
- Machine Learning in Scale
- Text Analytics and Natural Language Processing
- Machine Learning and Language Technologies
- Hot Topics of Data Science

WELCOMING AND OPENING CEREMONY

The forum started with Opening and Welcoming Ceremony at the ADA University.



Mr. Fariz Ismailzada, Vice Rector of External Government and Student Affairs. In his speech Mr. Ismailzada welcomed all the guests and participants, and expressed gratitude to official partner and sponsor Pasha Bank for supporting highly meaningful event. He also noticed the importance of the event for the ADA University as well as for whole country.



Dr. Araz Yusubov, Dean of School of IT and Engineering. Dr. Yusubov welcomed guests and briefly informed about history and most recent achievements of School of IT & Engineering. He said that Big Data Day Baku 2018 Forum was the effort of the university to execute one of the key activities of the Center for Data Analytics Research and mentioned that the center would have huge implications not only in Azerbaijan, but also in the region as a whole.



Dr. Abzetsk Adamov, Chair of BDDDB2018 International Forum, ADA University. Dr. Adamov welcomed all participants and briefly talked about the history of BDDDB2018 forum and its importance for increasing awareness about opportunities derived by Big Data Analytics. He noticed the importance of continues support from IEEE. Dr. Adamov thanked general sponsor of the event. He also expressed gratitude to keynote and invited speakers for their contribution.

PLENARY SPEECHES



Dr. Samir Rustamov,
Assistant Professor, School of IT & Engineering, ADA University.

Speech Title: Natural Language Processing and its Application.

Abstract: Natural Language Processing (NLP) is a field of artificial intelligence that enables computers interact with human in natural language. The main goal of NLP is to create ability of computer to understand and interpret human language by using machine learning algorithms. Information on the use of machine learning methods playing an important role in solving NLP problems will be provided as well. The conducted NLP research and developed software products for Azerbaijani language at the Center for Data Analytics Research at ADA University will be presented at the lecture.



Dr. Elshad Allahyarov,
Essen-Duisburg University, Essen, Germany, Research Professor.

Speech Title: The Philosophy of Big Data: from Hard Sciences to Soft Sciences.

Abstract: From scientific point of view Big data Science is not a science per se because of its lack of serious scientific approaches and theories aiming at getting universal discoveries and laws. Based mostly on IT technologies, Big Data employs statistical approaches and analytic methods to process and store the data, detect possible dependencies and correlations in it. Successful application of Big Data methods in soft science (economy, financing, sociology, linguistics, etc.) and data-intensive sciences gradually changes the data sharing etiquette in hard science.



Dr. Abzedin Adamov
Director, Center for Data Analytics Research (CeDAR), ADA University

Speech Title: Big Data Storage Problems and Solutions – Elephant in the Room Problem.

Abstract: Data is constantly generated people, organizations and machines. We already have huge amounts of Data and it continue to come at high speed much faster than we can process. Also data comes in various formats, so there is no common approach to deal with all data. Big Data Management highly depends of the following three components: Storage Capacity, Processing (Computation) Power and Data Transfer Speed. The speech is devoted to cost effective and fault tolerant solutions those can resolve Data Storage and Transfer problems.



Mr. Ramin Orucov,
Luxoft Poland, Senior Software Developer & Big Data Engineer

Speech Title: IBM Watson Services for NLP Applications

Abstract: Structured Streaming is a new streaming API, introduced in Apache Spark 2.0. It models stream as an infinite table, rather than discrete collection of data streams. It's a radical departure from models of other stream processing frameworks like Storm, Flink, Beam, etc. Structured Streaming is the first API to build stream processing on top of SQL engine. I'll talk about limitations of DStream API and new Spark 2.3 feature named "Continuous Processing mode" to achieve millisecond-scale latency.



Mr. Anar Suleymanov,
Customer Data Analyst, Kapital Bank

Speech Title: Big Data in Database Marketing

Abstract: *Big data is a buzzword of recent years in business and IT field. It is not valuable if you do not know how to turn it into value. In marketing big data is widely utilized for business decisions. Database marketing also involves big data.*

Ideally, database marketer possess technical skills such as statistical programming and business acumen. It encompasses extracting data from DWH or daily updated building data marts in DWH for single customer view, data visualization or descriptive statistics in order to gain comprehension about past behavior of the customers. Moreover, advance level of database marketing require predictive modelling in order to target customers based on their propensity scores.

LANGUAGE TECHNOLOGIES SESSION – BY STUDENTS

During special session students presented the results of their research-based Senior Design Projects:

- Umid Suleymanov, Development of Azerbaijan Text Classification System
- Shahnur Isgandarli, Development of Azerbaijani Text Similarity Checker System
- Samir Mammadov, Parts of Speech Tagging for Azerbaijani Language



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QUESTION – ANSWER SESSION

CLOSING CEREMONY