

# Center for Data Analytics Research as a Response to Big Data Challenges

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## INTRODUCTION to CeDAR

### Center for Data Analytics Research

#### Joint project





- R&D in state-of-the-art Data Science
- Increase Public, Industry and Government awareness
- Develop Industry-oriented Certification Programs, Undergraduate and Graduate programs in Data Science
- Attract youth to do outstanding research and build career career in Data Science

#### Research Areas

- Large-scale Data Management Tools, Architectures and Platforms
- Text Analytics, NLP and Computational Linguistics
- Speech Recognition
- Cross-Industry oriented (Big) Data Analytics
- Al and Machine Learning
- Data Visualization
- Web Data Mining

#### **Activities within Project**

- Fellowship program for researchers in DS
- Work-study program for students
- Certification programs in Data Science and Data Analytics
- Students Projects and Innovation Hub
- Open Data Hackathons
- Feasibility study for MS program in Data Science and Analytics



#### **CeDAR Certification & Training Lab**



Computer Lab - for trainings and certification programs and to be used as general purpose computer lab.

Laboratory is equipped with most powerful all-in-one workstations in market from HP:

Workstation: HP Pavilion 27inch - Intel® CoreTM Core i7 2,8GHz, 1TB HDD 7200 SATA, 16GB DDR4, NVIDIA GF930MX 2GB

#### **Computing Facilities at CeDAR**

**Computing Cluster** - the primary component of the CeDAR. This is powerful, scalable and fault-tolerant computing cluster based on distributed architecture, which will operate totally on opensource software.

#### **Characteristics of computing cluster:**

Processing CPU Cores: 102

Combined Memory: 1,568 TB

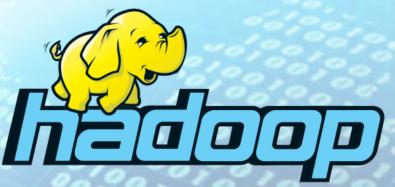
Total Storage: 136 TB





| Service | Host ≑                    | Status 🌲                      | 24-Hour             | Response  |
|---------|---------------------------|-------------------------------|---------------------|---|
| All \$  | Any                       | All                           | <b>\$</b>           |   |
| Ambari  | dnode01.cedar.cluster.ada | <b>OK</b> for 2 days          | 0                   | Capacity Used: [12.14%, 6.5 GB], Capacity Total: [53.7 GB], path=/us  |
| Ambari  | dnode02.cedar.cluster.ada | ok for 2 days                 | 0                   | Capacity Used: [8.12%, 4.4 GB], Capacity Total: [53.7 GB], path=/usr/ |
| Ambari  | dnode03.cedar.cluster.ada | ok for 2 days                 | LICTE               | Capacity Used: [7.98%, 4.3 GB], Capacity Total: [53.7 GB], path=/usr/ |
| Ambari  | dnode04.cedar.cluster.ada | CEDAK for day L               | USTE                | C pac y u to d: 1.7.7 4.2 GB], Capacity Total: [53.7 GB], path=/usr/  |
| Ambari  | dnode05.cedar.cluster.ada | <b>OK</b> for 2 days          | 0                   | Capacity Used: [7.65%, 4.1 GB], Capacity Total: [53.7 GB], path=/usr/ |
| Ambari  | dnode06.cedar.cluster.ada | <b>ok</b> for 2 days          | 0                   | Capacity Used: [7.28%, 3.9 GB], Capacity Total: [53.7 GB], path=/usr/ |
| Ambari  | dnode07.cedar.cluster.ada | ok for 2 days                 | 0                   | Capacity Used: [6.89%, 3.7 GB], Capacity Total: [53.7 GB], path=/usr/ |
| Ambari  | dnode08.cedar.cluster.ada | <b>OK</b> for 2 days          | 0                   | Capacity Used: [7.47%, 4.0 GB], Capacity Total: [53.7 GB], path=/usr/ |
| Ambari  | dnode09.cedar.cluster.ada | <b>OK</b> for 2 days          | 0                   | Capacity Used: [7.82%, 4.2 GB], Capacity Total: [53.7 GB], path=/usr/ |
| Ambari  | dnode10.cedar.cluster.ada | ok for 2 days                 | 0                   | Capacity Used: [8.64%, 4.6 GB], Capacity Total: [53.7 GB], path=/usr/ |
| Ambari  | dnode11.cedar.cluster.ada | ok for 2 days                 | 0                   | Capacity Used: [10.50%, 5.6 GB], Capacity Total: [53.7 GB], path=/us  |
| Ambari  | dnode12.cedar.cluster.ada | ok for 2 days                 | 0                   | Capacity Used: [11.62%, 6.2 GB], Capacity Total: [53.7 GB], path=/us  |
| Ambari  | dnode13.cedar.cluster.ada | <b>OK</b> for 2 days          | 0                   | Capacity Used: [11.43%, 6.1 GB], Capacity Total: [53.7 GB], path=/us  |
| Ambari  | dnode14.cedar.cluster.ada | ok for 2 days                 | 0                   | Capacity Used: [11.61%, 6.2 GB], Capacity Total: [53.7 GB], path=/us  |
| Ambari  | dnode15.cedar.cluster.ada | OK AAdamov, Cel<br>for 2 days | DAR, ADA University | Capacity Used: [12.46%, 6.7 GB], Capacity Total: [53.7 GB], path=/us  |

## Hadoop Ecosystem Components











































# SCIENTIFIC and INDUSTRY ORIENTED EVENTS

# 3RD INTERNATIONAL FORUM BIG DATA DAY - BAKU 2017 -

ORGANAZED BY:





MEDIA PARTNER:

INFOCITY

OFFICIAL PARTNER:



30 MAY, 2017 ADA UNIVERSITY

WWW.CEDAWI.ORG/BDDB2017



**INNOVATION PARTNER:** 



INDUSTRIAL PARTNER:



SUPPORTED BY:









### 11th IEEE International Conference AICT2017



20-22 Sep 2017, Moscow www.aict.info/2017





# BIG DATA BOATA HACKATHON

29-30 June 2018, ADA University



#### WHY SHOULD I PARTICIPATE? (BENEFITS):

- Try new technology, learn and compete in friendly and collaborative environment
- Participate in dedicated training provided by Center for Data Analytics Research (CeDAR)
- Networking with peers and industry experts Visibility to industry increasing chances for internship and full-time position
- Learn and face with real cross-industry business challenges

#### RECOMMENDED QUALIFICATIONS:

- Experience in statistics and statistical tools
- Experience in Machine Learning and Data Science methods to business problems
- Programming experience in any of: R, Python, Scala, SQL
- BSc / MSc / PhD in the field of Computer Science, Applied Mathematics, or any other area of STEM
- Strong presentation and communication skills
- Team work and project management skills

#### **Summer Short Trainings**

- Data Analytics Tools and Techniques
- Machine Learning for Data Science
- Big Data Platforms and Components

#### **SUMMER INTERNSHIP PROGRAM at CeDAR**

