



# ARTIFICIAL INTELLIGENCE TECHNOLOGY: SUMMER SCHOOL 2023

The most anticipated IT event  
of summer 2023



LVIV  
UNIVERSITY

Every summer, three years in a row we invite the best industry specialists, experts, mentors and lecturers from leading IT companies to create a unique educational platform for studying the features and novelties of artificial intelligence technologies.

**Goal:** To create an educational platform for studying theoretical foundations and practical skills between students and the IT industry in the field of artificial intelligence. To strengthen the attention of students of technical specialities to the challenges and opportunities provided by the technology of artificial intelligence. To create a basis for the development and creation of innovative products and solutions that use artificial intelligence.

Artificial intelligence is a powerful driver of change that opens up limitless opportunities for the development of the latest technologies.



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# AIT EXPERIENCE 2021-2022 ONLINE

## 2021



more than  
**350** participant



**26** specialists  
from the IT industry



**14** companies

## 2022



more than  
**400** participants  
+ international students



**36** specialists  
from the IT industry



**19** companies

# JOIN US IN 2023

## AIT 2023

**When:** 26 June – 7 July 2023

**Format:** Online/exclusive offline meetings

**School language:** English

**Target audience:** Students of technical specialities in Ukraine and abroad.

**School Topics:** Python, Big Data, Cloud Computing, Databases, Machine Learning, Deep Learning, Mobile Development, Web Development, Modern technologies of Artificial Intelligence

**More:** link to the site <http://ai.lnu.edu.ua/>

**Whom we are looking for (or we need):**

- speakers, mentors, mentors for school work
- partners for high-quality presentations of the school

**Write to our inbox:** [marketing@lnu.edu.ua](mailto:marketing@lnu.edu.ua)

**PS.** By creating artificial intelligence, we open up limitless possibilities for the future, where machine and man can work together to achieve incredible successes in science, art and life in general – chat GPT!



# BASIC TOPICS (3 DAYS)

## DAY 1

### Python for DS, ML&DL

#### Python

- Python basics
- Python for data analysis
- Python for visualization
- Python for data mining

#### Machine Learning toolchain

- Numpy, Pandas, Scikit-learn
- TensorFlow, Keras, PyTorch
- Apache MXNet
- OpenCV
- OpenAI Gym, Apache Airflow

#### Git, Data Version Control (DVC)

## DAY 3

### Machine learning basics

### Supervised Machine Learning

### Reinforcement Machine Learning

### Unsupervised Machine Learning

### Deep learning

## DAY 2

### Big data and cloud computing

#### Big Data

- Big Data in AWS
- Big Data in GCP
- Big Data in Azure
- Big Data Visualization

#### Cloud services and technologies.

#### Cloud computing

- Amazon Web Services
- Google Cloud Platform
- MS Azure
- SaaS, PaaS and IaaS
- Industry Cloud Platforms

#### Databases

- Relational, non-relational, distributed databases
- Data warehouse, ETL, Data Workflows

# ADVANCED TOPICS

## Advanced Machine learning

CV, Image recognition and classification, NLP, Speech recognition, Audio recognition, Text recognition and emotion detection, Deep learning for forecasting, End-to-end Machine learning projects/models to solve practical problems, Generative models, artificial art, Language models, Transformers, BERT, GPT models family (GPT-1, 2, 3, 3.5, 4), Adaptive AI, AI Trust, Democratized AI, Risk and Security Management (AI TRiSM), AutoML, Multi-modal learning

## High-performance computing

Fundamentals of parallel, hybrid and distributed computing, Getting Started with Jetson Xavier NX Developer Kit, Getting started with Google Coral's TPU USB, Accelerator or/and Google Coral , Development Board

## Mobile development

Android, iOS, Flutter, Kotlin Multiplatform for Cross-Platform Mobile Development, Swift, React Native for mobile, Integration of artificial intelligence systems in mobile development, Distribution of mobile applications

## Web development

Web development using Flask / Django, Authentication methods for web services, Organization of infrastructure and deployment of web services, Web analytics, Social network analysis, Crawlers, analytical platforms, Integration of artificial intelligence systems in web development, JavaScript

## **Software development**

C, C++, Java, Go,  
Digital Immune System,  
Superapps,  
Platform Engineering,  
AI Code Generation

## **IoT, IIoT, AIoT**

Internet of Things, Industrial Internet of Things,  
Artificial Intelligence of Things,  
Edge AI, Embedded AI

## **AI in Automotive**

## **Atomization AI**

## **Virtual reality, Metaverse, Digital twins**

## **Usage of AI in modern services, applications, platforms**

AI in COVID researches and solutions,  
AI in sustainable, ecological and environmental technologies,  
Decision Support Systems and Applied Observability

## **Cyber security and AI**

## **Soft Skills**

Communication  
Collaboration and teamwork  
Time management and organization  
Empathy / Emotional intelligence  
Owning up to errors  
Problem solving and creativity  
People skills and management  
Innovation  
Analytical thinking



Facebook –  
approx.

**25 000**

readers

Instagram –  
approx.

**14 000**

readers

## **AN AUDIENCE TO SPREAD THE WORD ABOUT AIT 2023 AND ITS PARTNERS**

Telegram –  
more than

**4 000**

readers

Linkedin – over

**33 000**

subscribers