School of Mathematics and Data Science

DATA SCIENCE SUMMER CAMP '23

Data Visualization & Implementing a Chatbot using Python

Summer Camp for High School Students(Grade 11 & 12)

AIM:

To inspire high school students and cultivate their interest in data science by providing them with foundational knowledge and skills. The camp also promotes teamwork, critical thinking, and effective communication while showcasing real-world applications.

OBJECTIVE:

- To gain a fundamental understanding of data science subjects.
- To conduct experiments on data visualization and chatbot implementation.
- To understand the application of mathematics in the process of data analysis.
- To bridge the gap between theoretical classroom knowledge and practical application through various educational activities.

ELIGIBILITY:

- High school students aged 17-19 years (11th grade onwards).
- Students with STEM backgrounds.

WHEN & WHERE:

2 Sessions:

- Session 1: 24th to 28th July

- Session 2: 31st July to 4th August

8:30 am - 3:30 pm

Emirates Aviation University- Dubai International Academic City (DIAC)

TOPICS/ EXPERIMENTS COVERED:

- Introduction to Data Science
- Python Exercises
- Data Visualization: matplotlib/seaborn
- Implementing an Artificial Intelligence ChatBot
- Predictive Modelling
- Optimization and Decision Making
- AI/Data science project implementation and presentation

SCHEDULE:

DAY 1

Sessions	Timings
Defining Data Science	8:30 - 11:30
Python Exercise 1 (Part 1)	11:30 - 12:00
Lunch 12:00 - 13:00	
Python Exercise 1 (Part 2)	13:00 - 15:30

DAY 2

Python Exercises 2	9:00 - 11:00
Linear Regression (theory +case study)	11:00 - 12:00
Lunch 12:00 - 13:00	
Data Visualization: matplotlib and Seaborn (Data Cleaning and exploration) Part-1	15:00 - 15:30
Project Discussion	15:00 - 15:30

DAY 3

Predictive Modelling	9:00 - 10:00
Artificial Intelligence (AI) Chatbot Session-1	11:00 - 12:00
Lunch 12:00 - 13:00	
Artificial Intelligence (AI) Chatbot Session-1	13:00 - 15:00
Project Discussion	15:00 - 15:30

DAY 4

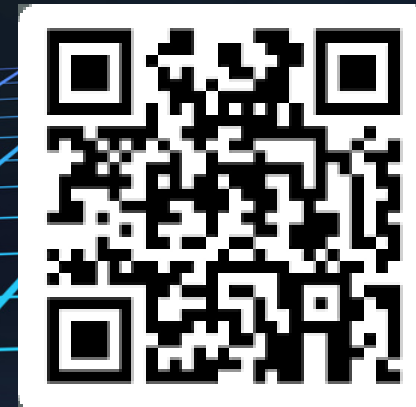|	
Optimization and Decision-Making	9:00 - 11:00
Project Implementation Session 1	11:00 - 12:00
Lunch 12:00 - 13:00	
Data Visualization: matplotlib and seaborn (Data Cleaning and exploration) Part-2	13:00 - 14:00
Project Implementation Session 2	14:00 - 15:30

DAY 5

Project Presentation/Demos	9:00 - 11:00
Closing Ceremony	11:15 - 12:00
Lunch 12:00 - 13:00	

REGISTRATION:

- Participation in the Summer Camp is restricted to students from grade 11 and above.
- The registration fee per participant is AED 300 (including lunch).
- Registration will be on a first-come, first-served basis.
- Registration Deadline: July 18th, 2023

Register Now

Please contact via the below email if you need any further details about the Summer Camp:

admin-mathematics@eau.ac.ae