

Summer School on Data Science at AUA in Yerevan, Armenia, August 23 - 31, 2022
Schedule and Program Overview

August 23-24:

Students attend CODASSCA 2022 workshop sessions

Day 1 (Thursday, August 25, 2022):

- 10:00 - 11:00 Welcome, short presentation of AUA and UDE, and Goals of the summer school (Prof. Hajian, PhD, Dean Akian College of Science and Engineering AUA; Prof. Schiele, Head of the German-Armenian Cooperation at UDE Faculty of Engineering)
- 11:00 - 11:15 Students are asked to fill a questionnaire about students' expectations and suggestions (L. Buron)
- 11:15 - 12:15 Researching and Studying at the UA Ruhr – diversity of people and universities (Prof. Vinck)

- 13:15 - 14:45 Artificial Neural Networks and Deep Learning: from single neurons to learning systems (Prof. Keryan)
- 15:00 - 16:30 Lab: first steps with AI programming (C. Qian, L. Buron, Prof. Schiele)

- 17:00 – 19:00 Reception and “Dialogue: Studying and researching in Germany – impressions and experiences (Baloian, DAAD Alumnus, Dr. Harutyunyan AvH Fellow) (Moderation: Prof. Luther)

Day 2 (Friday, August 26, 2022):

- 09:00 - 10:30 To err is (not just) human: when AI fails (Prof. Schiele)
- 10:45 - 12:15 Choosing the right deep learning architecture for your task: natural language processing and beyond (Prof. Mesgar)

- 13:15 - 14:45 AI-based Biosignal Analysis: ML Application Examples in Medicine (Prof. Schiele)
- 15:00 - 16:30 Lab: Image recognition (C. Qian, L. Buron, Prof. Schiele)

- 17:00 – 18:30 Documenting two genocides: Leopold Fleischhacker, a Jewish sculptor in Nazi-Germany – a virtual Khatchkar museum documenting expulsion and genocide (Prof. Baloian, Prof. Luther)

Day 3 (Monday, August 29, 2022):

- 09:30 - 10:30 Computer Science at the UDE: an introduction (Prof. Luther, Prof. Schiele)
- 10:45 - 12:15 On the impact of information theory for artificial intelligence research (Prof. Vinck)

- 13:15 - 14:45 Commonsense Knowledge and Reasoning (Prof. Mesgar)
15:00 - 16:30 Practicing state-of-the-art models using prompts (Prof. Mesgar, David Lewakis)
17:00 - 18:30 A look at contemporary German history with LeMO - Living Museum Online (Dr. D. Biella)

Day 4 (Tuesday, August 30, 2022):

- 09:00 - 10:30 Funding opportunities in Germany (together with DAAD, enterprises, and German foundations, GIZ in Yerevan, (Moderation: Prof. Vinck)
10:45 - 12:15 Uncertainty modeling in AI applications (Prof. Luther)
13:15 - 14:45 Resource optimization techniques for embedded deep learning (Prof. Schiele)
15:00 - 16:30 Lab: embedded deep learning (C. Qian, L. Buron, Prof. Schiele)
17:00 - 18:00 Uncertainty Modelling applied to Classification: predicting stroke risks and crime (Baloian-Peñafiel)

Day 5 (Wednesday, August 31, 2022):

- 10:45 - 12:15 Ethics in AI (Prof. Mesgar)
13:15 - 14:45 Round table (with students, professors, and Dean AUA CSE): Expectations and opportunities of a study and internship stay in Germany (Moderation: Prof. Luther)
14:45 - 15:15 Closing, Farewell and Evaluation