

# Data Science Summer School 2022

Introduction to Machine Learning for Engineering Sciences

4 – 8 July 2022, Leoben, Austria

## Schedule

The week of the TU Austria Data Science Summer School 2022 will consist of morning lectures and afternoon hands-on workshops. It will cover foundational topics of machine learning and applications in various technical areas. We start with an optional get-together on Sunday evening and are also planning an outdoor excursion on Wednesday, which will conclude with dinner.

The expected arrival in Leoben, Austria is Sunday, July 3<sup>th</sup> 2022.

### Monday, July 4<sup>th</sup>

09.00 AM – 10.30 AM      Intro Machine Learning: Performance measures & testing

Coffee break

11.00 AM – 12.30 PM      Introduction to Python for Machine Learning

Lunch break

2.00 PM – 5.30 PM      Workshop: Machine Learning with Python  
(incl. coffee break)

### Tuesday, July 5<sup>th</sup>

09.00 AM – 10.30 AM      Intro Machine Learning: Data preparation & CNNs

Coffee break

11.00 AM – 12.30 PM      Deep Learning with Python

Lunch break

2.00 PM – 5.30 PM      Workshop: Deep Learning  
(incl. coffee break)

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## Wednesday, July 6<sup>th</sup>

09.00 AM – 10.30 AM Information, knowledge & understanding

Coffee break

11.00 AM – 12.30 PM Autoencoders for physical systems

Lunch break

2.00 PM – open end Excursion

Dinner

## Thursday, July 7<sup>th</sup>

09.00 AM – 12.30 PM Machine Learning in robotics (incl. coffee break)

Lunch break

2.00 PM – 5.30 PM Workshop: Robotics (incl. coffee break)

## Friday, July 8<sup>th</sup>

09.00 AM – 12.30 AM Machine Learning in Materials Science (incl. coffee break)

Lunch break

2.00 PM – 5.30 PM Open lab (incl. coffee break)

All information given is subject to change.