Machine Learning and Data Analytics in Finance and Accounting (MDA)

Munich, Germany
July 22 – August 9, 2024
www.mda-misu.de

Online-Sessions July 22 – July 27
In-class Sessions July 29 – August 9

Tentative Schedule

Munich 2024

Sessions: July 22 – August 9
Session will take place at: will be announced

Patronage

Prof. Dr. Thorsten Sellhorn
Institute for Accounting, Auditing and Analysis
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Lecturer

Dr. Andreas Woltschläger
Professional expert and former Research Assistant
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Live seminar sessions
As live online tool for the courses, we will use "Zoom":
https://lmu-munich.zoom.us/

It is not mandatory to create a LMU Zoom account. You will receive
an invitation by email before the first session for participation in class
and the Zoom Client is usable in you browser.

Classroom in Munich
tba

Program

All times are stated in the CEST standard time format

Date	Time	Block	Content	Readings
Mon, 22.07. ONLINE	**10:00 – 14:00**	**Intro**	Introduction to machine learning and its application in finance and accounting	MG* - Chapter 1 (p. 1 – 4)
Tue, 23.07.			No class	
Wed, 24.07. ONLINE	**9:00 – 13:00** **.**	**Introduction to Python**	Getting ready Python Basics for Data Science Case – Part 1	MG* - Chapter 1 (p. 5 – 11)
Thu, 25.07. ONLINE	**14:00 – 18:30** **Starting from 19:00 p.m.**	**Introduction to Python** **Team event**	Importing, cleaning and merging data Case – Part 2 Bavarian and international culture	
Fri, 26.07.			No class	
Sa, 27.07 ONLINE	**9:00 – 13:00**	**Introduction to Python**	Natural language processing - Textual Analysis Case – Part 3	MG* - Chapter 7 (p. 3 – 325)

Date	Time	Block	Content	Readings
Mon, 29.07.			Arrival in Munich	
Tue, 30.07. IN-CLASS	**9:00 – 13:00**	**Machine Learning**	Unsupervised machine learning Case - Part 4	MG* - Chapter 2 (p. 25– 27)
Wed, 31.07. IN-CLASS	**9:00 – 13:00**	**Machine Learning**	Supervised machine learning I - Basics	MG* - Chapter 2 (p. 25– 27)
Thu, 01.08. IN-CLASS	**9:00 – 13:00** **17:30**	**Machine Learning**	Supervised machine learning II (GH) - Application Case - Part 5 Wrap-up & Q&A **MISU Welcome Event**	MG* - Chapter 3 (p. 131-134)
Fri, 02.08. IN-CLASS	**14:00 – 18:30** **Starting 18:30**	**Machine Learning**	Supervised machine learning II - Model evaluation Case - Part 6 Bavarian culture II	
Sat, 03.08.	**9:00 – 13:00**	**Data Analytics I & II**	Data Visualization Data description Statistical analysis Case - Part 7 Selected topics in data analytics Summary of overall content	
Sun, 04.08.	**08:00**		**Day Trip Bavarian Castles**	

Date	Time	Block	Content	Readings
Mon, 05.08.			**No class. Time to prepare case study presentations.**	
Tue, 06.08. IN-CLASS	**9:00 – 13:00**	**Presentations & Wrap-up 2**	Presentations on supervised and unsupervised machine learning (e.g., prediction of house price)	
Wed, 07.08. IN-CLASS			**No class. Time to prepare for exam.**	
Thu, 08.08.	**10:00 – 11:00** **13:00**	**Exam** **Farewell Event**		
Fri, 09.08.			No class	
Sat, 10.08.	**No class** **Departure**			

Note that the agenda is preliminary and may be subject to change.

References:

* Andreas C. Müller, Sarah Guido: Introduction to Machine Learning with Python: A Guide for Data Scientists, 1st Edition - MG (Main Textbook)

Bird, Steven; Klein, Ewan; Loper, Edward: Natural Language Processing with Python, First edition, 2009

Géron, Aurélien: Hands-On Machine Learning with Scikit-Learn and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems 1st Edition