



MUNICH **MISU**^{LMU}
INTERNATIONAL SUMMER
UNIVERSITY

Machine Learning and Data Analytics in Finance and Accounting

Munich, Germany
July 12 - 30, 2021
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Munich 2021

Sessions: July 12 – 30

Session will take place at: will be announced

Patronage



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Lecturer



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Date			
Sat, 10			
Sun, 11			
Date	Block	10.00 a.m. – 14.00 p.m.	Readings
Mon, 12	Intro	<p>Introduction to machine learning and its application in finance and accounting (AW)</p> <p>Meeting point: will be announced</p> <p>Case Introduction</p>	MG* - Chapter 1 (p. 1 – 4)
Date	Block	9.00 a.m. – 13.30 p.m.	Readings
Tue, 13	Introduction to Python	<p>Getting ready</p> <p>Python Basics for Data Science (AW)</p> <p>Case – Part 1</p>	MG* - Chapter 1 (p. 5 – 11)
Date	Block	9.00 a.m. – 13.30 p.m.	Readings
Wed, 14	Introduction to Python	<p>Importing, cleaning and merging data (AW)</p> <p>Case – Part 2</p>	

Date	Block	9.00 a.m. – 13.30 p.m.	Readings
Thu, 15	Introduction to Python	Natural language processing - Textual Analysis (AW) Case – Part 3	MG* - Chapter 7 (p. 323 – 325)
Date	Block	15.00 p.m. – 18.00 p.m.	Readings
Thu, 15	Recap and team event	Recap and bavarian culture I (Starting 15:00 p.m.)	
Fri, 16	No class. Time to prepare for exam and student's presentation.		
Sat, 17			
Sun, 18			
Date	Block	9.00 a.m. – 13.30 p.m.	Readings
Mon, 19	Machine Learning	Unsupervised machine learning (AW) Case - Part 4	MG* - Chapter 2 (p. 25– 27)
Tue, 20	Machine Learning	Supervised machine learning I - Basics (GH)	MG* - Chapter 2 (p. 25– 27)
Wed, 21	Machine Learning	Supervised machine learning II (GH) - Application Case - Part 5 Wrap-up & Q&A	MG* - Chapter 3 (p. 131-134)
Date	Block	15.00 p.m. – 18.00 p.m.	Readings
Thu, 22	Recap and team event	Recap and bavarian culture II (Starting 15:00 p.m.)	
Date	Block	15.00 p.m. – 18.00 p.m.	Readings
Fri, 23	No class. Time to prepare for exam and student's presentation.		
Sat, 24			
Sun, 25			

Date	Block	9.00 a.m. – 13.30 p.m.	Readings
Mon, 26	Machine Learning	Supervised machine learning II (GH) - Model evaluation Case - Part 6	
Tue, 27	Data Analytics & Wrap-up 2 & Q&A	Data Visualization Data description Statistical analysis Case - Part 7 Summary of overall content (GH)	
Date	Block	14.00 a.m. – 17.15 p.m.	Readings
Tue, 27	Presentations	Student's Presentations (GH)	
Wed, 28	No class. Time to prepare for exam.		
Date	Block	9.00 a.m. – 10.00 a.m.	Readings
Thu, 29	Exam	GH/AW	
Fri, 30			
Sat, 31			

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