COURSE DETAIL

DATA SCIENCE, BIG DATA AND DATA VARIETY
Country Australia
Host Institution University of Sydney
Program(s) University of Sydney
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 120
UCEAP Course Suffix
UCEAP Official Title DATA SCIENCE, BIG DATA AND DATA VARIETY
UCEAP Transcript Title DATA SCI/BIG DATA
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course examines the methods and techniques to efficiently explore and analyze large data collections. Students will learn how to ingest, combine and summarize data from a variety of data models which are typically encountered in data science projects, such as relational, semi-structured, time series, geospatial, image, text. As well as reinforcing their programming skills through experience with relevant Python libraries, this course will also introduce students to the concept of declarative data processing with SQL, and to analyze data in relational databases. Students will be given data sets from, eg. , social media, transport, health and social sciences, and be taught basic explorative data analysis and mining techniques in the context of small use cases. The course will further give students an understanding of the challenges involved with analyzing large data volumes, such as the idea to partition and distribute data and computation among multiple computers for processing of 'Big Data'.

Language(s) of Instruction
English

Host Institution Course Number
DATA2001

Host Institution Course Title
DATA SCIENCE, BIG DATA AND DATA VARIETY

Host Institution Course Details
https://www.sydney.edu.au/units/DATA2001/2024-S1C-ND-CC

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed
2023-2024

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