Semester 2/2024

ITX2007 Data Science Outline

Comprehensive problem-solving mindset, principles, techniques, and tools to deal with various facets of data science practices including data preparation and visualization, exploration, description and prediction required for knowledge extraction in both science and business domains.

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| Week Topic(s)    1 Overview of Data Science  2 Overview of Data Science (cont.)  3 Basic Plots and Data Processing (Data Visualization)  4 Data Manipulation with Pandas  5 Exploratory Data Analysis 1  6 Exploratory Data Analysis 2  7 Exploratory Data Analysis 3  8 Review and Discussion  9 Data Preprocessing: merging and concatenation  10 Statistical Inference  11 Regression with Statmodels  12 Machine Learning for Data Science 1  13 Machine Learning for Data Science 2  14 Machine Learning for Data Science 3  15 Application of Machine Learning in Data Science | Assessment   * In-class assignments, quizzes, mini-project 20 * Midterm 40 * Final 40 |