

Data Visualization

Instructor

Assoc. Prof. Dr.
Bora CANBULA

Phone

0 (236) 201 10 11

Email

bora.canbula@cbu.edu.tr

Office Location

Dept. of CENG, C233

Office of General Secretary
Administrative Building

Office Hours

4 pm – 5 pm, Mondays

Course Overview

Data Visualization (Teams Code: k0z1h3w / zosu1uv)

We are going to learn the basics of data fetching, data preprocessing, visualization of data, and finally publishing the results which we are going to create in this course.

Python and JavaScript are preferred as the programming language for the applications of this course.

Required Text

Interactive Data Visualization with Python 2nd Edition, Packt, *Abha Belorkar et al.*

Building Data Science Applications with FastAPI, Packt, *Francois Voron*

Data Visualization with Python and JavaScript, O'Reilly, *Kyran Dale*

Course Materials

- Python 3.x (Anaconda is preferred)
- Jupyter Notebook from Anaconda
- Pycharm from JetBrains / Visual Studio Code from Microsoft
- Mac / PC with a Linux distro or a Linux terminal in Windows 10/11.

Course Schedule

Week	Subject	Week	Subject
01	Data Structures in Python	08	Publishing Data Reports with Flask
02	Data Preprocessing with NumPy and Pandas	09	Basics of JavaScript
03	Data Visualization with Matplotlib: 2d Plots	10	Using JavaScript with FastAPI
04	Data Visualization with Matplotlib: 3d Plots	11	SVGs and HTML with D3.js
05	Animated Data Visualization with Matplotlib	12	Interactive Visualization with D3.js
06	Data Visualization with Seaborn	13	A Dashboard with Python and JS
07	Creating Interactive Visualization with Plotly	14	Deploying the Dashboard to a Server