Microsoft

MLADS

MACHINE LEARNING, AI,
AND DATA SCIENCE CONFERENCE

November 14- 18, 2022

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Microsoft

Introduction to Common ML Packages

Shep Sheppard
shep.sheppard@microsoft.com
https://www.linkedin.com/in/sqlshep/
@sqlshep

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Microsoft

Introduction to Statistics

Shep Sheppard
Customer Engineer
Fast Track ISV

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Session goals

- Intro to Common Python Packages used for Data Engineering and Machine Learning
  - Pandas
  - Numpy
  - Seaborn/MatPlotLib/Pillow
  - SciKit-Learn

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Pandas

- Name is derived from “Panel Data”
- Pandas is a python Package that aims to make data engineering fast, flexible and intuitive
- Support for multiple data types, read, write
- Perform statistical analysis
- Basic visualizations

- Notebook = 00-Pandas.ipynb

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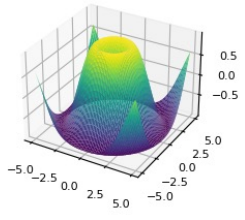
Numpy

- Numerical Python
- Fundamental package for scientific computing in Python
- Provides a multidimensional array object support

- Notebook = 00-Numpy.ipynb



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SciKit-Learn

- scikit-learn is a Python module for machine learning and data engineering built on top of SciPy
- Classification
- Regression
- Clustering
- Dimensionality Reduction
- Data Preprocessing

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Seaborn/MatplotLib/Pillow

- **Seaborn** is a Python visualization library based on matplotlib
- Matplotlib is a comprehensive library for creating static, animated and interactive visualizations in python.
- Pillow is "Python Imaging Library"

Notebook - 01-Visualization-The-Gateway-Drug.ipynb
Notebook - 03-Seaborn.ipynb

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Key learnings and insights

- Learnings and insights
  - Learnings and insights 1
  - Learnings and insights 2

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Q&A
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