Advanced Python Cheat Sheet

■ *Reading and Writing Files*

Reading a file with open()
Writing to a file using 'w' mode
Reading line by line in a loop

■ *What is an API (with Python)?*

- APIs let programs communicate over the internet
- Use the 'requests' library to make GET and POST calls

■ *ML Libraries Overview & Key Functions*

NumPy: Fast math with arrays
- np.array(), np.mean(), np.std(), np.dot()

pandas: Read and clean CSVs
- pd.read_csv(), df.head(), df.dropna(), df.groupby()

matplotlib: Plotting
- plt.plot(), plt.bar(), plt.hist(), plt.show()

scikit-learn: Machine learning
- model.fit(), model.predict(), train_test_split()

■ *Data Cleaning & Analysis (pandas)*

- Load data with pd.read_csv()
- Drop/fill NaNs: df.dropna(), df.fillna()
- Type conversion: pd.to_datetime()
- Filtering, grouping, summarizing

■ *Handy Libraries Recap*

- requests: APIs
- pandas: DataFrames
- numpy: Arrays, math
- matplotlib: Graphs
- scikit-learn: ML
- json: Working with JSON

■ *Explore more:*

- pandas.pydata.org
- scikit-learn.org
- matplotlib.org
- requests.readthedocs.io