



Data Science: Setup Guide

1 Install Python

1. Go to 🖱️ <https://www.python.org/downloads/>



2. Click **Download Python 3.x** (latest version).
3. Run the installer →
 - ☒ Check **Add Python to PATH**
 - ☒ Click **Install Now**
4. Verify installation:

Open **Command Prompt** → type:

```
python --version
```

☒ You should see something like `Python 3.12.0`

2 Install PyCharm

1. Go to 🖱️ <https://www.jetbrains.com/pycharm/download>

2. Choose **Community Edition (Free)** → Download.
 3. Run installer → keep defaults → click **Install**.
 4. Open PyCharm → click **New Project** → select installed Python interpreter.
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3 Install Jupyter Notebook

In **Command Prompt / Terminal**, run:

```
pip install notebook
```

Launch Jupyter with:

```
jupyter notebook
```

👉 Opens in browser like this:

4 Install Data Science Libraries

Run each command:

```
pip install pandas  
pip install numpy  
pip install matplotlib  
pip install seaborn  
pip install scikit-learn  
pip install streamlit  
pip install joblib
```

5 Verify Installation

In **Python (IDLE, Jupyter, or PyCharm)** run:

```
import pandas, numpy, matplotlib, seaborn, sklearn, streamlit, joblib
print("✅ All libraries installed successfully!")
```

6 Test Streamlit (Optional)

Run:

```
streamlit hello
```

👉 Streamlit will open in your browser with a demo app.

7 Test in PyCharm

Example code in a `.py` file:

```
import seaborn as sns
import matplotlib.pyplot as plt

df = sns.load_dataset("iris")
sns.pairplot(df, hue="species")
plt.show()
```

👉 You should see an iris dataset visualization.

✅ Setup complete — you are ready for the **Data Science Workshop!**