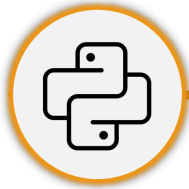# Why Python?

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Why Python**?**

Python is a free, open-source programming language that is both powerful and easy to learn

It has become one of the most popular languages in the world because of its **accessibility**, **flexibility**, **ease of use**, and **wide range of applications**, such as:

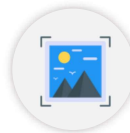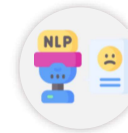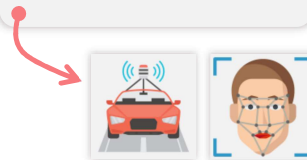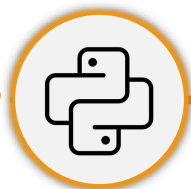|	
Data Analytics	Web Scraping
Software Dev	Machine Learning
Web Development	Image Processing

NLP

Natural Language Processing
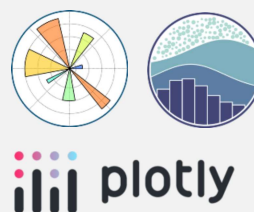
Python Analytics Areas

General Purpose

Learning **base Python** will give you the capability to write programs for your general purpose for example: downloading videos from YouTube

Data Manipulation

Pandas library helps us handle structured dataset. Structured datasets are similar to SQL or Excel. **Pandas** also provide us lot's of useful tools to manipulate data to gain intuition about our data

Data Visualization

Matplotlib and **Seaborn** can create a wide range of visualization

Plotly can be used to create interactive visualizations and dynamic dashboards

Machine Learning

Scikit learn is one the most common package for building machine learning models

Statsmodels provides proper tools for model building and statistical analysis

TensorFlow is the industry standard for developing deep learning models