

Do research, and create an article about the use case of both Python and R usage in top companies. So there will be two articles, one for Python and one for R. The article should include but not limited to:

- Short explanation about the topics or use case.
- The usability of Python and R in that use case.

The rest of the article is up to you to write about anything else (can be about the packages used or anything else). The article doesn't need to be very long, just around 3-4 paragraphs.

Answer:

R and Python are programs that most used by data scientist to build models. R was originally built as a statistical programming. It later be widely used for classical tests, time-series analysis, clustering, data mining and more. There are many packages and layers for plotting and analysing graphs, such as ggplot2. One of company uses R is Google, a worldwide search engine that gains income from advertisement, to predict business activities. It used many models such as:

- Fit autoregressive models to predict retail sales, automotive sales, passenger arrival data etc
- Set-top box (STB) data, to determine the number of viewers who stays vs switch over for each ad
- And also for statistical analysis and visualization, to make online marketing more effective.

Python is a friendly tool for new programmer that it can be called the most important general-purpose object-oriented programming languages. It has also many libraries such as NumPy for statistical analysis, pandas for data preparation and seaborn for generating plots. Netflix, a subscription-based streaming service company, is an example of a company that chose Python programming. Netflix uses machine learning on Python to scrutinizes movies, enhances streaming, and pulls out images to exhibit thumbnails. It also has one of the dynamic software written in Python to strengthen the safety of the structure, examine data reports and alerts. Some models of python used by Netflix:

- Security: Risk classification, security automation, vulnerability identification and remediation
- Operations to execute numerical analysis: SciPy, NumPy
- Building model: machine learning

R and Python has some similarity such as they both have wide range of libraries and packages. They both also can be used for data visualization, machine learning, data mining, statistical analysis and many more analyses. While they have some similarities, each has its own set of strengths.

R:

- R is best tool for manipulate data. It has over 10,000 packages for data wrangling on its CRAN.
- R lets users alter the customize and best quality of graphics with minimal coding.

Python:

- Python is quite easy and intuitive to learn for beginners.
- Python can load large files faster, so it is better for large datasets.

In conclusion, either R or Python can be used as a tool for data scientist. R is more specialised in statistical analytics and graph visualisation, so it is widely used in academia, finance, and health care. Meanwhile Python is easy to use so many beginner programmers use it, and more specialised in deploying model, so it widely used in software tech company, automation, and robotics.

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