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Guido Van Rossum - Creator of Python

# Early Life

Guido Van Rossum was born on the 31st of January 1956 in the Netherlands. Van Rossum schooled at the University of Amsterdam in 1982 where he received a degree in Mathematics and Computer Science.

# Career

Once graduated from University, Van Rossum began working at the Centrum Wiskunde and Informatica (CWI) where he began contributing to early versions of BSD UNIX and helped develop the ABC programming language.

The ABC programming language had a number of features that differentiate it from other high level languages at the time such as:

* 5 basic data types
* No need for variable declarations
* Nesting statements indicated by indentation instead of braces
* Infinite sized lists and strings

But it also had some major drawbacks such as the inability to access the underlying file structure and inability to adapt to new requirements such as creating GUI’s.

The syntax for the ABC language was done in such a way that it made it easily accessible to beginners and also easily readable for anyone else that needed to inspect the code.

These 2 traits of the ABC language greatly influenced Van Rossum when he was creating Python.

Following his stint at CWI, Van Rossum went on to work at the U.S National Institute of Standards and Technology and the Corporation for NAtional Research Initiatives . From there he worked at various other companies before ending up in Google in 2005 where he began development on Python as a “'hobby' programming project that would keep [him] occupied during the week around Christmas”.

Currently, Van Rossum works at Dropbox, where he began working at since 2013.

# Impacts on Software Development

Van Rossum is most notable for his work on developing the Python programming language. His initial goals for the language was to create a language that was:

* An easy to learn and intuitive to code language that was capable of everything other major competing languages were able to do and more.
* Open source so anyone would be able to contribute to the code base and edit their own versions as they see fit.
* Code that was as easy to understand and read as plain english
* Suitable for everyday tasks, allowing it to be used for both small scale, short term development tasks but also versatile enough that it can be used for larger projects.

Python has grown over the years to become one of the most popular programming languages in the world, ranking behind Javascript and Java and one of the most in demand languages by companies.

Some of the key aspects of the language are it’s simple and easy to learn nature, portability, Interpretation and Extensive Libraries.

## Simple and Easy to Learn

Python was inspired by Van Rossum’s time working on the ABC language that was built to be easily readable and just as easy to pick up. The language has a pseudo-code like nature that allows the programmer to focus more on solving the actual problem rather than dealing with syntactic issues. This falls in line with Van Rossum’s goal of creating an easy to learn and code language.

## Portability

Python has been ported to virtually every platform imaginable, due to it’s open source nature.

## Interpretation and Libraries

Unlike other C based languages, Python doesn’t need to be compiled at runtime as the programs are run directly from the source code at runtime and converted into an intermediate form called bytecodes and then into binary. This allows python to be much more portable as it can work on any computer as long as long as it has a copy of the source code.

As for libraries, Python has an extensive collection to do everything from web development to systems programming and everything in between. As it’s open source, new libraries and packages are added all the time to prove extended usability and versatility.

## Uses in Industry

Python is used extensively across the IT world in nearly every major company.

Companies like Google use it as one of their core languages and have it all over their infrastructure. Reddit, one of the largest online social networks use python in their base code for their website

Uber use Python in their lower back-end to support day to day tasks.

Python is also used extensively by people doing research in machine learning modelling and creating ML products as it has extensive support for creating models using Sci-Kit Learn, an open source ML package used by many data scientists and machine learning engineers.

As well as this, Python is used in Financial institutions widely also as it has many libraries that are used for data visualization and processing such as Numpy,Matplotlib,Seaborn and Pandas.