

# Guido Van Rossum

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## INTRODUCTION

Guido Van Rossum formerly known by the nickname '*The Benevolent Dictator For Life*' (*BDFL*) is the creator of the increasingly popular programming language 'Python', which is the main reason I decided to write about him. Python's popularity is increasing year on year due to its ease of use and its suitability to several tasks, making it the language behind a variety of software applications in today's world.

## EARLY LIFE

Van Rossum was born in the Netherlands in 1956, where he also grew up. He became interested in electronics and technology from an early age when he began designing circuits in school. He learned his craft for programming at the University of Amsterdam, from where he graduated with a master's in mathematics and computer science. (Khamlichi, 2015)

After graduating, Van Rossum worked in several different places, such as the Centrum Wiskunde & Informatica where he helped develop the language 'ABC', a language designed to be easy to use for scientists without a programming background. Van Rossum got tired of writing too many small utility programs in C and he longed for a language that could be simple but convenient for dirty tasks. During a holiday break in 1989, he used some features of 'ABC' to design this new language, which he called 'Python' (Hsu, 2018). Van Rossum then released Python in 1991 and since then it has undergone continual improvement, being hailed as the 'Swiss Army Knife' for programmers (Computer History Museum, 2018). Van Rossum also

created the multi-platform web browser ‘Grail’ which was developed by the CNRI and written in ‘Python’ (The Famous People, 2018).

## DEVELOPING PYTHON

From the beginning, ‘Python’ was available as free software under a modified MIT license years before the term ‘open source’ was coined, as Van Rossum wanted to share it widely. Van Rossum moved to the United States in 1994, mainly because of the Python community and his work organizing Python workshops. Initially, he was a guest researcher at the National Institute of Standards and Technology(NIST), and later on at the Corporation for National Research Initiatives(CNRI). At CNRI, Van Rossum worked with an internal team full time developing Python. This enabled him to apply for a DARPA grant, which focused on Python's use in education under the title ‘Computer Programming for Everybody’. Under this proposal, Van Rossum defined his goals for Python to be:

- Easy and intuitive, while still being powerful.
- Understandable
- Suitable for everyday tasks.
- Open source (Wikipedia, 2019).

Python being an open source software was a main concern for Van Rossum, but he became concerned that CNRI would restrict the licensing of future versions of Python. This affair is what caused Van Rossum to leave CNRI, even though the threat was held off. Van Rossum firstly joined ‘BeOpen’, a web portal startup which failed in the dotcom crash, before joining ‘Zope’ in 2000, where he started the Python Software Foundation to safeguard its open source status (Hsu, 2018).

## VAN ROSSUM'S OTHER WORK

In 2005, Van Rossum was offered a job at the multinational technology giant ‘Google’. During his time in Google, he spent roughly half of his time developing the Python Language. In an interview about his time in Google, he said, “the first two years I worked on one of the first online code review tools Mondrian, which itself was never open-sourced but begat Rietveld, which did, and is used amongst others, by the Python, Go and Chromium communities” (Slashdot, 2013). Mondrian and Rietveld are both code review tools running on Google App Engine. Rietveld is used in many open source projects, whereas Mondrian is not open source (Gerrit Code Review, 2019).

In 2013, Van Rossum left Google for Dropbox. The reason he gave was, “After seven years at Google I was just ready for some change in environment, and then the Dropbox offer came along. At a high level, my job hasn't changed much” (Slashdot, 2013). Van Rossum is currently

still working in Dropbox on the Datastore API, where he does most of his work independently. Van Rossum joined Dropbox as a regular engineer, not a manager or technical lead. He said this was because he always felt most comfortable just writing code, and he never really enjoyed the formality of management.

Van Rossum recently stepped down from his role as “Benevolent Dictator for Life” (BDFL), after originally obtaining the title in 1995. This role meant that he had the final say in any kind of disputes or arguments within the Python community (The Famous People, 2018). He gives reasons for stepping down, one of them being, “I did not enjoy it when core developers were sort of sending tweets where they were questioning my authority or the wisdom of my decisions” (Slashdot, 2013). Van Rossum still works in Dropbox today as a principal engineer (LinkedIn, 2019).

## IMPACT AND ACCOLADES

Van Rossum’s impact on the world of software engineering has been remarkable. His work in computer programming, especially the development of Python has earned him several accolades over the years including:

- The ‘Award for the Advancement’ of Free Software from the ‘Free Software Foundation’ in 2001 for his work on Python.
- ‘NLUUG Award’ in May 2003
- Recognized by the ‘Association for Computing Machinery’ as a ‘Distinguished Engineer’ in 2006
- Became a ‘Fellow of the Computer History Museum’ in 2018.

He has also come up with some ‘Python’-related books. These include ‘Internet Programming with Python’ (1996), which he co-authored with Aaron Watters and James C Ahlstrom (The Famous People, 2018).

Van Rossum’s design philosophy of convenience, productivity, and extensibility, his commitment to maintaining Python as a free and open source project, and his mentorship and fostering of the Python community have been instrumental in Python’s success as a global language of the internet age (Hsu, 2018).

Python has influenced a huge number of other programming languages such as Cobra, Julia, Ruby, and Swift. Python has been awarded the TIOBE Programming Language of the Year award two times in 2007 and 2010, which was given to the language with the greatest growth in the popularity over the course of the year, as it’s measured by TIOBE index (Khamlichi, 2015).

In conclusion, it is very clear to see that Van Rossum has had a major impact on the world of software engineering. The scope of his work goes far beyond just creating Python or being the BDFL. The effects of his work have been felt worldwide for a number of years now, and they will still be felt for years to come, making the world a better place for us software engineers.

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