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Developer Stories: Guido van Rossum, founding father of Python, benevolent dictator, and problem solver

Videotranscript

Question: What do you work on at Microsoft?

Guido van Rossum: First the project that I started about a year ago at Microsoft, where I formed a team of people to make the Python Interpreter faster and we have gotten results there where the next release of Python – Python 3.11, which will come out I think in October this year – is according to our benchmark about 20 to 25 percent faster than Python 3.10, which came out last October. Other projects I am working on are sort of internal consultancy projects, where I help other teams at Microsoft integrate Python public-facing or developer-facing Microsoft products.

Question: For a long time, you have been the benevolent dictator for life within the Python community – what does that mean?

Guido van Rossum: My role as benevolent dictator for life – that was actually a joke title that was invented specifically for me in the late 90s. And then it showed up in the meeting notes from a meeting in 1996 or 1997 where a bunch of people had gotten together and were planning some local Python activities. And because we were in a light-hearted mood, we all assigned each other sort of joke titles and one of the people present was really good at sort of improvising silly jokes. I think at first, I was the 'interim benevolent dictator for life' and then it was just an acknowledgement as well because it is his language because he created it and he is still here sort of guiding the design and implementation. And so, later in the early 00s when things changed around, and I moved jobs a few times somehow people started referring to by that same term abbreviated as BDFL. And then eventually it became a term that was also used for a sort of single leader of an open-source project, who was the original creator or the current single lead maintainer. So currently Python has no longer a BDFL. I resigned in 2018, I believe. We have a steering council, which is five people who are elected annually by the group of core developers of which we have, I don't know, roughly a hundred or so.

Question: In which ways are you still actively involved in the development of Python today?

Guido van Rossum: Well so in Python the sort of topics I am currently involved in are mostly the sort of topics that I started in the last decade for example an asyncio library and I am still occasionally involved in improvements to that. The latest thing we added for example in 3.11 is task groups which is a way to sort of run tasks and wait for them to finish properly. A big thing that I started a little after the asyncio stuff is type annotations and that is an area where there is a lot of language design activity that I try to sort of guide as well as I can to help the

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people come up with good ideas to sort of shape those ideas in syntax that is sort of acceptable to Python users and is understandable. And the finally I sort of oversee the faster C Python project. Although fortunately we now have hired a full-time manager and that project is capable of running even when I am not holding everybody's hands from day to day.

Question: Where is the Python development headed?

Guido van Rossum: Python development is generally evolutionary. Python makes slow and careful steps towards new features and versions. The current steering council, while being open to all sorts of language improvement ideas also has generally a very strong focus on preserving backwards compatibility. And so, performance is a great thing to work on because you can make everything faster without changing APIs, without breaking people's code – although it turns out it is harder in practice than in theory. New feature wise we are looking to gradually add improved syntax for type annotations and typing in general. That is still a controversial topic. So, I see that as a program that will run for the next five years. There are people who are working hard to make Python compiled to web assembly, which is an area that I know very little about.