

Python developers survey 2018

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Page exit logic: Skip / Disqualify Logic**IF:** #2 Question "Is Python the main language you use for your current projects?" is one of the following answers ("No, I don't use Python for my current projects") **THEN:** Jump to [page 13](#)

Logic: Show/hide trigger exists.

Is Python the main language you use for your current projects?*

- ☐ Yes
- ☐ No, I use Python as a secondary language
- ☐ No, I don't use Python for my current projects

What other language(s) do you use?*

- ☐ None
- ☐ Java
- ☐ JavaScript
- ☐ C/C++
- ☐ PHP
- ☐ C#
- ☐ Ruby
- ☐ Bash / Shell
- ☐ Objective-C
- ☐ Go
- ☐ Visual Basic
- ☐ Scala
- ☐ SQL
- ☐ Kotlin
- ☐ R
- ☐ Swift

- ☐ Clojure
 - ☐ Perl
 - ☐ Rust
 - ☐ Groovy
 - ☐ TypeScript
 - ☐ CoffeeScript
 - ☐ HTML/CSS
 - ☐ Other - Write In:: _____ *
-

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For what purposes do you mainly use Python?*

- ☐ For work
- ☐ For personal, educational or side projects
- ☐ Both for work and personal

Logic: Show/hide trigger exists.

What do you use Python for?*

- ☐ Educational purposes
- ☐ Data analysis
- ☐ DevOps / System administration / Writing automation scripts
- ☐ Software testing / Writing automated tests
- ☐ Software prototyping
- ☐ Web development
- ☐ Machine learning
- ☐ Mobile development
- ☐ Desktop development
- ☐ Computer graphics
- ☐ Network programming
- ☐ Game development
- ☐ Multimedia applications development

- ☐ Embedded development
- ☐ Programming of web parsers / scrapers / crawlers
- ☐ Other - Write In:: _____ *
-

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Piping: Piped From Question 5. (**What do you use Python for?**)

To what extent are you involved in the following activities?*

	primary activity	secondary activity	hobby
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Logic: Hidden unless: Roles count is greater than "1"

Piping: Piped Values From Question 5. (**What do you use Python for?**)

What do you use Python for the most?*

Logic: Hidden unless: #5 Question " What do you use Python for?" is one of the following answers ("Data analysis","Machine learning")

Do you consider yourself as a Data-Scientist?*

- ☐ Yes
- ☐ No
- ☐ Other – Write In:: _____ *
-

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Logic: Show/hide trigger exists.

Which version of Python do you use the most?*

- ☐ Python 2
- ☐ Python 3

Logic: Hidden unless: #8 Question "Which version of Python do you use the most?" is one of the following answers ("Python 2")

Which version of Python 2 do you use the most?*

- ☐ Python 2.0
- ☐ Python 2.1
- ☐ Python 2.2
- ☐ Python 2.3
- ☐ Python 2.4
- ☐ Python 2.5
- ☐ Python 2.6
- ☐ Python 2.7

Logic: Hidden unless: #8 Question "Which version of Python do you use the most?" is one of the following answers ("Python 3")

Which version of Python 3 do you use the most?*

- ☐ Python 3.0
- ☐ Python 3.1
- ☐ Python 3.2
- ☐ Python 3.3
- ☐ Python 3.4
- ☐ Python 3.5
- ☐ Python 3.6
- ☐ Python 3.7

What do you typically use to upgrade your Python version?*

- ☐ I don't update
- ☐ Somebody else manages Python updates for me
- ☐ Python.org

- ☐ Build from source
- ☐ Automatic upgrade via cloud provider
- ☐ Enthought
- ☐ Anaconda
- ☐ ActivePython
- ☐ Intel Distribution for Python
- ☐ OS-provided Python (via apt-get, yum, homebrew, etc.)
- ☐ pyenv
- ☐ pythonz
- ☐ I use Docker containers
- ☐ Other – Write In:: _____ *

Do you use any of the following tools to isolate Python environments, if any?*

- ☐ None
 - ☐ Virtualenv / pipenv
 - ☐ Conda
 - ☐ Docker
 - ☐ Vagrant / virtual machines
 - ☐ Other – Write In:: _____ *
-

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What web frameworks / libraries do you use in addition to Python?*

- ☐ None
- ☐ Django
- ☐ TurboGears
- ☐ web2py
- ☐ Bottle
- ☐ CherryPy
- ☐ Flask
- ☐ Hug
- ☐ Pyramid
- ☐ Tornado

☐ Falcon

☐ Other – Write In:: _____ *

What data science framework(s) do you use in addition to Python?*

☐ None

☐ NumPy

☐ SciPy

☐ Pandas

☐ Matplotlib

☐ Seaborn

☐ SciKit-Learn

☐ Keras

☐ TensorFlow

☐ Theano

☐ NLTK

☐ Gensim

☐ Other - Write In:: _____ *

Which of the following frameworks / libraries do you use in addition to Python?*

☐ None

☐ Requests

☐ aiohttp

☐ PyQT

☐ PyGTK

☐ wxPython

☐ Pillow

☐ Tkinter

☐ Pygame

☐ Twisted

☐ Asyncio

☐ Kivy

☐ Six

☐ Scrappy

☐ Other – Write In:: _____ *

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Logic: Show/hide trigger exists.

Which of the following cloud platforms do you use?*

- ☐ None
- ☐ Google Cloud Platform
- ☐ AWS
- ☐ Microsoft Azure
- ☐ Rackspace
- ☐ Heroku
- ☐ DigitalOcean
- ☐ Linode
- ☐ PythonAnywhere
- ☐ OpenShift
- ☐ OpenStack
- ☐ Other – Write In:: _____ *

Logic: Hidden unless: #16 Question "Which of the following cloud platforms do you use?" is one of the following answers ("Google Cloud Platform","AWS","Microsoft Azure","Rackspace","Heroku","DigitalOcean","Linode","PythonAnywhere","OpenShift","OpenStack","Other – Write In:")

How do you run code in the cloud (in the production environment)?*

- ☐ None of the following
- ☐ In virtual machines
- ☐ Within containers
- ☐ On a Platform-as-a-Service (such as Heroku or Google App Engine)
- ☐ Serverless (such as AWS Lambda or Cloud Functions)
- ☐ Other – Write In:: _____ *

Logic: Hidden unless: #16 Question "Which of the following cloud platforms do you use?" is one of the following answers ("Google Cloud Platform","AWS","Microsoft Azure","Rackspace","Heroku","DigitalOcean","Linode","PythonAnywhere","OpenShift","OpenStack","Other – Write In:")

How do you develop for the cloud?*

- ☐ None of the following
- ☐ With local system interpreter
- ☐ Locally with virtualenv (or similar)
- ☐ In Docker containers
- ☐ In virtual machines
- ☐ In remote development environments
- ☐ Directly in the production environment
- ☐ Other – Write In:: _____ *

What operating system(s) are your development environment?*

- ☐ Windows
- ☐ Linux
- ☐ macOS
- ☐ BSD
- ☐ Other – Write In:: _____ *

Which Python unit-testing framework(s) do you use, if any?*

- ☐ None
 - ☐ pytest
 - ☐ nose
 - ☐ unittest
 - ☐ doctest
 - ☐ Tox
 - ☐ Hypothesis
 - ☐ mock
 - ☐ Other – Write In:: _____ *
-

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What ORM(s) do you use together with Python, if any?*

- ☐ None
- ☐ Django ORM
- ☐ SQLAlchemy
- ☐ Peewee
- ☐ Dejavu
- ☐ PonyORM
- ☐ SQLAlchemy
- ☐ Tortoise ORM
- ☐ Other – Write In:: _____ *

Which database(s) do you regularly use, if any?*

- ☐ None
- ☐ DB2
- ☐ MS SQL Server
- ☐ MySQL
- ☐ Oracle Database
- ☐ PostgreSQL
- ☐ SQLite
- ☐ Cassandra
- ☐ Couchbase
- ☐ HBase
- ☐ MongoDB
- ☐ Neo4j
- ☐ Redis
- ☐ Amazon Redshift
- ☐ h2
- ☐ Other – Write In:: _____ *

Which of the following Big Data tool(s) do you use, if any? *

- ☐ None
- ☐ Apache Beam
- ☐ Apache Flink
- ☐ Apache Hadoop/MapReduce
- ☐ Apache Hive
- ☐ Apache Samza
- ☐ Apache Kafka
- ☐ Apache Spark
- ☐ Apache Tez
- ☐ Dask
- ☐ ClickHouse
- ☐ Other – Write In:: _____ *

Which Continuous Integration (CI) system(s) do you regularly use?*

- ☐ None
- ☐ Jenkins / Hudson
- ☐ TeamCity
- ☐ Bamboo
- ☐ Travis CI
- ☐ CircleCI
- ☐ CruiseControl
- ☐ Gitlab CI
- ☐ AppVeyor
- ☐ Other – Write In:: _____ *

Which configuration management tools do you use, if any?*

- ☐ None
- ☐ Salt
- ☐ Puppet
- ☐ Chef
- ☐ Ansible
- ☐ Custom solution
- ☐ Other – Write In:: _____ *

Logic: Show/hide trigger exists.

What is the main editor you use for your current Python development?*

- ☐ None
 - ☐ PyCharm Professional Edition
 - ☐ PyCharm Community Edition
 - ☐ Sublime Text
 - ☐ Vim
 - ☐ Atom
 - ☐ VS Code
 - ☐ Eclipse + Pydev
 - ☐ Aptana
 - ☐ Jupyter Notebook
 - ☐ IntelliJ IDEA
 - ☐ NotePad++
 - ☐ IDLE
 - ☐ Emacs
 - ☐ Python Tools for Visual Studio (PTVS)
 - ☐ NetBeans
 - ☐ Spyder
 - ☐ Rodeo
 - ☐ Gedit
 - ☐ Ninja-IDE
 - ☐ Komodo Editor
 - ☐ Komodo IDE
 - ☐ Wing IDE
 - ☐ TextMate
 - ☐ Other – Write In:: _____ *
-

Logic: Hidden unless: #26 Question "What is the main editor you use for your current Python development?" is not one of the following answers ("None")

Piping: Piped Values From Question 26. (What is the main editor you use for your current Python development?)

What editors/IDEs do you use for Python development in addition to [question('value'), id='298']?*

☐ None

☐ Other – Write In:: _____*

Do you regularly work on multiple projects at the same time?*

☐ No, I only work on one project

☐ Yes, I work on one main and several side projects

☐ Yes, I work on many different projects

Logic: Hidden unless: IsMobile

When developing in Python, how often do you ...? (Optional)

	Often	From time to time	Never or Almost never
use autocompletion in your editor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use a debugger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
refactor your code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use Version Control Systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use code linting (programs that analyze code for potential errors)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

use Python virtual environments for your projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use SQL databases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use NoSQL databases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
run / debug or edit code on remote machines (remote hosts, VMs, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use a Python profiler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
write tests for your code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use code coverage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use optional type hinting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use Continuous Integration tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use Issue Trackers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Page entry logic: This page will show when: #26 Question "What is the main editor you use for your current Python development?" is not one of the following answers ("None")

How did you first learn about [question('value'), id='298']?

- ☐ Social network
- ☐ Friend / Colleague
- ☐ School / University
- ☐ Advertising
- ☐ Search engines
- ☐ Technical review / Forum / Blog
- ☐ Conference / User Group

☐ Other – Write In:: _____ *

☐ I don't remember

How often do you use [question('value'), id='298']?

☐ Daily

☐ Weekly

☐ Monthly

☐ Less frequently

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Logic: Show/hide trigger exists.

Most of the time, do you ...? *

☐ Work in a team

☐ Work on your own project(s) independently

☐ Work as an external consultant or trainer

Logic: Hidden unless: #36 Question "Most of the time, do you ...? " is one of the following answers ("Work in a team")

How many people are in your project team?*

☐ 2-7 people

☐ 8-12 people

☐ 13-20 people

☐ 21-40 people

☐ More than 40 people

Logic: Show/hide trigger exists.

What is your employment status?*

- ☐ Fully employed by a company / organization
- ☐ Partially employed by a company / organization
- ☐ Self-employed (*a person earning income directly from one's own business, trade, or profession*)
- ☐ Freelancer (*a person pursuing a profession without a long-term commitment to any one employer*)
- ☐ Student
- ☐ Retired
- ☐ Other – Write In:: _____ *

Logic: Hidden unless: #38 Question "What is your employment status?" is one of the following answers ("Fully employed by a company / organization", "Partially employed by a company / organization", "Self-employed (*a person earning income directly from one's own business, trade, or profession*)")

How many people work for your company / organization?*

- ☐ Just me
- ☐ 2–10
- ☐ 11–50
- ☐ 51–500
- ☐ 501–1,000
- ☐ 1,001–5,000
- ☐ More than 5,000
- ☐ Not sure

Logic: Hidden unless: #38 Question "What is your employment status?" is one of the following answers ("Fully employed by a company / organization", "Partially employed by a company / organization", "Self-employed (*a person earning income directly from one's own business, trade, or profession*)")

Which of the following industries best describes your company's business?

Choose one from the list:*

- ☐ Accounting / Finance / Insurance
- ☐ Administration / Management
- ☐ Banking / Real Estate / Mortgage Financing

- ☐ Business / Strategic Management
- ☐ Construction / Architecture
- ☐ Customer Support
- ☐ Design
- ☐ Education / Training
- ☐ Human Resources
- ☐ Information Technology / Software Development
- ☐ Law
- ☐ Logistics/ Transportation
- ☐ Machinery
- ☐ Manufacturing
- ☐ Marketing
- ☐ Medicine / Health
- ☐ Non-profit
- ☐ Publishing
- ☐ Restaurants / Hospitality
- ☐ Sales / Distribution / Business Development
- ☐ Science
- ☐ Security
- ☐ Service/ Maintenance
- ☐ Other - Write In:*. _____

Logic: Hidden unless: (#38 Question "What is your employment status?" is one of the following answers ("Fully employed by a company / organization","Partially employed by a company / organization") AND Question "Choose one from the list:" is one of the following answers ("Information Technology / Software Development"))

Which of the following industries do you develop for?

Choose one from the list:*

- ☐ Accounting / Finance / Insurance
- ☐ Administration / Management
- ☐ Banking / Real Estate / Mortgage Financing
- ☐ Business / Strategic Management
- ☐ Construction / Architecture
- ☐ Customer Support
- ☐ Design

- ☐ Education / Training
 - ☐ Human Resources
 - ☐ Information Technology / Software Development
 - ☐ Law
 - ☐ Logistics/ Transportation
 - ☐ Machinery
 - ☐ Manufacturing
 - ☐ Marketing
 - ☐ Medicine / Health
 - ☐ Non-profit
 - ☐ Publishing
 - ☐ Restaurants / Hospitality
 - ☐ Sales / Distribution / Business Development
 - ☐ Science
 - ☐ Security
 - ☐ Service/ Maintenance
 - ☐ Other - Write In*: _____
-

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How long have you been working in the IT industry?*

- ☐ Less than 1 year
- ☐ 1–2 years
- ☐ 3–5 years
- ☐ 6–10 years
- ☐ 11+ years

Logic: Hidden unless: #38 Question "What is your employment status?" is one of the following answers ("Fully employed by a company / organization", "Partially employed by a company / organization", "Self-employed (*a person earning income directly from one's own business, trade, or profession*)", "Freelancer (*a person pursuing a profession without a long-term commitment to any one employer*)")

Which of the following best describes your job role(s)?*

☐ DBA

☐ Architect

☐ QA engineer

☐ Developer / Programmer

☐ Technical support

☐ Data analyst

☐ Business analyst

☐ Team lead

☐ Product manager

☐ CIO / CEO / CTO

☐ Systems analyst

☐ Other – Write In:: _____ *

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Could you tell us your age range?*

☐ 17 or younger

☐ 18–20

☐ 21–29

☐ 30–39

☐ 40–49

☐ 50–59

☐ 60 or older

What country do you live in?*

☐ Afghanistan

☐ Albania

☐ Algeria

☐ Andorra

☐ Angola

- ☐ Antigua and Barbuda
- ☐ Argentina
- ☐ Armenia
- ☐ Australia
- ☐ Austria
- ☐ Azerbaijan
- ☐ Bahamas, The
- ☐ Bahrain
- ☐ Bangladesh
- ☐ Barbados
- ☐ Belarus
- ☐ Belgium
- ☐ Belize
- ☐ Benin
- ☐ Bhutan
- ☐ Bolivia
- ☐ Bosnia and Herzegovina
- ☐ Botswana
- ☐ Brazil
- ☐ Brunei
- ☐ Bulgaria
- ☐ Burkina Faso
- ☐ Burundi
- ☐ Cambodia
- ☐ Cameroon
- ☐ Canada
- ☐ Cape Verde
- ☐ Central African Republic
- ☐ Chad
- ☐ Chile
- ☐ China
- ☐ Colombia
- ☐ Comoros
- ☐ Congo, Democratic Republic of the
- ☐ Congo, Republic of the
- ☐ Costa Rica
- ☐ Cote d'Ivoire

- ☐ Croatia
- ☐ Cuba
- ☐ Curacao
- ☐ Cyprus
- ☐ Czech Republic
- ☐ Denmark
- ☐ Djibouti
- ☐ Dominica
- ☐ Dominican Republic
- ☐ East Timor (see Timor-Leste)
- ☐ Ecuador
- ☐ Egypt
- ☐ El Salvador
- ☐ Equatorial Guinea
- ☐ Eritrea
- ☐ Estonia
- ☐ Ethiopia
- ☐ Fiji
- ☐ Finland
- ☐ France
- ☐ Gabon
- ☐ Gambia, The
- ☐ Georgia
- ☐ Germany
- ☐ Ghana
- ☐ Greece
- ☐ Grenada
- ☐ Guatemala
- ☐ Guinea
- ☐ Guinea-Bissau
- ☐ Guyana
- ☐ Haiti
- ☐ Holy See
- ☐ Honduras
- ☐ Hong Kong
- ☐ Hungary
- ☐ Iceland

- ☐ India
- ☐ Indonesia
- ☐ Iran
- ☐ Iraq
- ☐ Ireland
- ☐ Israel
- ☐ Italy
- ☐ Jamaica
- ☐ Japan
- ☐ Jordan
- ☐ Kazakhstan
- ☐ Kenya
- ☐ Kiribati
- ☐ Kosovo
- ☐ Kuwait
- ☐ Kyrgyzstan
- ☐ Laos
- ☐ Latvia
- ☐ Lebanon
- ☐ Lesotho
- ☐ Liberia
- ☐ Libya
- ☐ Liechtenstein
- ☐ Lithuania
- ☐ Luxembourg
- ☐ Macau
- ☐ Macedonia
- ☐ Madagascar
- ☐ Malawi
- ☐ Malaysia
- ☐ Maldives
- ☐ Mali
- ☐ Malta
- ☐ Marshall Islands
- ☐ Mauritania
- ☐ Mauritius
- ☐ Mexico

- ☐ Micronesia
- ☐ Moldova
- ☐ Monaco
- ☐ Mongolia
- ☐ Montenegro
- ☐ Morocco
- ☐ Mozambique
- ☐ Myanmar
- ☐ Namibia
- ☐ Nauru
- ☐ Nepal
- ☐ Netherlands
- ☐ Netherlands Antilles
- ☐ New Zealand
- ☐ Nicaragua
- ☐ Niger
- ☐ Nigeria
- ☐ North Korea
- ☐ Norway
- ☐ Oman
- ☐ Pakistan
- ☐ Palau
- ☐ Palestinian Territories
- ☐ Panama
- ☐ Papua New Guinea
- ☐ Paraguay
- ☐ Peru
- ☐ Philippines
- ☐ Poland
- ☐ Portugal
- ☐ Qatar
- ☐ Romania
- ☐ Russia
- ☐ Rwanda
- ☐ Saint Kitts and Nevis
- ☐ Saint Lucia
- ☐ Saint Vincent and the Grenadines

- ☐ Samoa
- ☐ San Marino
- ☐ Sao Tome and Principe
- ☐ Saudi Arabia
- ☐ Senegal
- ☐ Serbia
- ☐ Seychelles
- ☐ Sierra Leone
- ☐ Singapore
- ☐ Slovakia
- ☐ Slovenia
- ☐ Solomon Islands
- ☐ Somalia
- ☐ South Africa
- ☐ South Korea
- ☐ South Sudan
- ☐ Spain
- ☐ Sri Lanka
- ☐ Sudan
- ☐ Suriname
- ☐ Swaziland
- ☐ Sweden
- ☐ Switzerland
- ☐ Syria
- ☐ Taiwan
- ☐ Tajikistan
- ☐ Tanzania
- ☐ Thailand
- ☐ Timor-Leste
- ☐ Togo
- ☐ Tonga
- ☐ Trinidad and Tobago
- ☐ Tunisia
- ☐ Turkey
- ☐ Turkmenistan
- ☐ Tuvalu
- ☐ Uganda

- ☐ Ukraine
 - ☐ United Arab Emirates
 - ☐ United Kingdom
 - ☐ United States
 - ☐ Uruguay
 - ☐ Uzbekistan
 - ☐ Vanuatu
 - ☐ Venezuela
 - ☐ Vietnam
 - ☐ Yemen
 - ☐ Zambia
 - ☐ Zimbabwe
-