## Python, extra waarde voor je CV

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| Python bestaat uit overzichtelijke brokken code, zodat het makkelijk te leren en breed inzetbaar is. Steeds meer bedrijven ontdekken Python, het kan dus van waarde voor je CV zijn. Maar, waar begin je met leren?  Universiteiten als Stanford, Universiteit Leiden, Erasmus maar ook Google, stellen hun cursussen en lesmateriaal beschikbaar. Extra fijn is dat alles op deze websites gratis is.  Je kunt je ook in Python laten certificeren wat wel wat kost, maar dat is niet verplicht. | Python consists of clear chunks of code, so that it is easy to learn and versatile.  More and more companies are discovering Python, so it can be of value to your CV.  But where do you start learning?  Universities such as Stanford, Leiden University, Erasmus, but also Google, make their courses and teaching materials available.  Extra nice is that everything on these websites is free.  You can also get certified in Python for what it costs, but it is not mandatory. |

<https://www.coursera.org/courses?query=python&userQuery=python>

Book Python for kids is good to start learning: Teach Your Kids To Code. A Parent Friendly Guide To Python Programming. By Bryson Payne, *No Starch Press*: Gratis te downloaden

If you prefer video’s and have time, this is a good crash course with exercises: <https://www.coursera.org/learn/python-crash-course>; the learning objectives are

* Understand what Python is and why Python is relevant to automation
* Write short Python scripts to perform automated actions
* Understand how to use the basic Python structures: strings, lists, and dictionaries
* Create your own Python objects

**Content you should get acquainted with:**

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| * What is Python? * Why is Python relevant to IT? * Other Languages * Hello, World! * Python Can Be Your Calculator | * Data Types * Variables * Expressions, Numbers, and Type Conversions * Defining Functions * Returning Values * The Principles of Code Reuse * Code Style * Comparing Things * Branching with if Statements * else Statements * elif Statements |
| * [Introduction to Loops](https://www.coursera.org/lecture/python-crash-course/introduction-to-loops-CSVTX) * What is a while loop? * More while Loop Examples * Why Initializing Variables Matters * Infinite Loops and How to Break Them * What is a for loop? * More for Loop Examples * Nested for Loops * Common Errors in for Loops * What is recursion? (Optional) | * [Basic Structures Introduction](https://www.coursera.org/lecture/python-crash-course/basic-structures-introduction-NW4e8) * What is a string? * The Parts of a String * Creating New Strings * More String Methods * Formatting Strings * What is a list? * Modifying the Contents of a List * Lists and Tuples * Iterating over Lists and Tuples |

**For us: Bare minimum to start & link with physical computing**

**Python in the cloud, we use**

**Notebooks:**

[**https://colab.research.google.com/notebooks/intro.ipynb**](https://colab.research.google.com/notebooks/intro.ipynb)

[**https://cocalc.com/**](https://cocalc.com/)

**Test environment:**

[**https://trinket.io/mission-zero**](https://trinket.io/mission-zero)

[**https://create.withcode.uk/**](https://create.withcode.uk/)

**eg paste:**

**from microbit import \***

**while True:**

**display.scroll('Hello, World!')**

**display.show(Image.HEART)**

**sleep(2000)**

1. **test en spelletje met namen oef pag 33**
2. **dan tekenen en een if else structuur**
3. **dan jump naar physical computing**

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