

Variables and Strings in Python

Variables

Variables are different than constants. A constant is supposed to be un-changeable, like 1, or 12 or "the". In algebra what is called a "variable" is often an un-changeable value. That is what you normally think of as a "variable". In programs it is different. One of the nice things about Python is that constants can't be changed. In other languages like 'C' or 'C++' you can (usually unintentionally) change the value of constants (OUCH!!!).

In C when you add 1 + 1 and get 18 as a result that is usually a moment of anxiety.

So...

First a little diagram of what is going on - then some interactive play with python.

Lecture 3 Videos

Variables and Strings Part 1 - <https://youtu.be/Vi7j4VRVpHw>

More on Strings Part 2 - <https://youtu.be/t2Ui-OK8s7M>

Strings and Debuggin in VS Code - <https://youtu.be/BrZBJwsOjdl>

From Amazon S3 - for download (same as youtube videos)

[Variables and Strings Part 1](#)

[More on Strings Part 2](#)

[Strings and Debuggin in VS Code](#)

Lecture 4 Videos

First - a little detour into the news

These links are at beginning of Lecture 4.

1. Self driving and hand gestures <https://spectrum.ieee.org/transportation/self-driving/selfdriving-cars-learn-to-read-the-body-language-of-people-on-the-street>
2. Better Photos <https://www.newscientist.com/article/2253195-ai-removes-unwanted-objects-from-photos-to-give-a-clearer-view/>
3. Flying / Dogfights <https://www.thedrive.com/the-war-zone/35947/navy-f-a-18-squadron-commanders-take-on-ai-repeatedly-beating-real-pilot-in-dogfight>

4. Exoplanets <https://www.extremetech.com/extreme/314272-machine-learning-ai-confirms-50-new-planets>
5. Brest Cancer - Analysis <https://hitinfrastructure.com/news/new-baylor-study-will-train-ai-to-assist-breast-cancer-surgery>
6. Brest Cancer - Treatment <https://medicalxpress.com/news/2020-08-ai-good-average-radiologist-breast.html>

In the News - Machine Learning - <https://youtu.be/fN45vYGao-w>

Visualization Example - Thins that are 8

Metnal Models and Computers - <https://youtu.be/j4Tt2H8N1To>

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In the News - Machine Learning

Visualization Example

Metnal Models and Computers

This weeks Podcasts on YouTube

Computer Trends : blockchain - <https://youtu.be/PWXzgveBUXY>

Why Test Software - <https://youtu.be/ptdpZ7QrLyM>

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Computer Trends : blockchain

Why Test Software