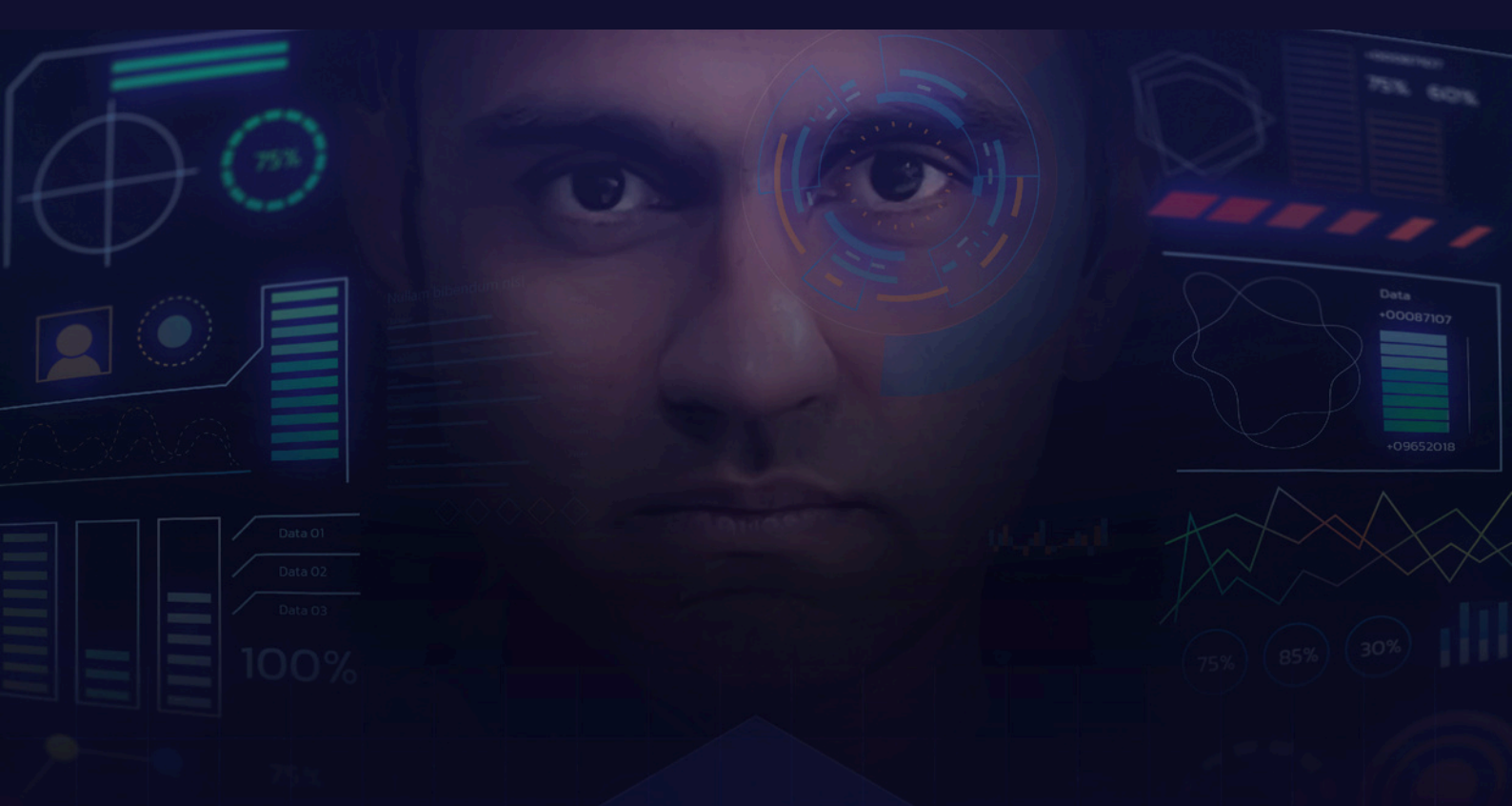

CODE BASICS

Python Basics: Variables, Numbers & Strings

TAKEAWAYS

codebasics.io

Variables

1. Variables are containers that store data in a Python program
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3. Rules of naming variables correctly,
    - You can not use reserve words as variable names (e.g. def, True etc.)
    - Variable names must start with a letter or an underscore _
    - It cannot contain spaces or special characters (@, #, $, %, etc.)
    - Underscore _ is a valid character and can be present at any place in a variable name

Numbers

1. Integer numbers store whole numbers (without decimal part), e.g. 57
2. Float numbers store fractional numbers with whole and decimal part, e.g. 57.23
3. type(variable_name) can be used to detect the data type of a variable
4. / operator is used for division whereas // is used to retrieve integer part of the division
5. % is a modulo operator, it returns the remainder of a division operation

Numbers

6 x**y will return x raised to the power of y

7 You can do type casting using functions such as float(), int(), str() etc.

8 float("10.2") will convert string value "10.2" to a float value 10.2

9 math is a handy module in Python that allows you to run different functions such as sqrt, floor, ceil etc.

Strings

1. In Python, strings are immutable, meaning they cannot be changed once created.
2. Access specific characters or substrings in Python using indexing (e.g., **name[0]**) and slicing (e.g., **name[1:5]**).
3. Use string formatting techniques like f-strings (e.g., **f'{variable}'**) for easier and more readable string composition in Python.
4. Python provides built-in methods for strings, such as **.upper(), .lower(), .split()**, and **.strip()**