Programming Resources

Contents

- [The Number One Skill You Need to Have to Become a Software Developer](#)

- [Four Stages of Becoming a Programmer](#)

- [Steve Jobs gives the Best Definition of Object-Oriented Programming](#)

Python Class Text

Some of the instructional materials used were adapted and remixed under Creative Commons license https://creativecommons.org/licenses/by-nc-sa/3.0/us from the following books.

- [The Coder's Apprentice](#), Creative Commons, Pieter Spronck

- [Python for Everybody](#), Creative Commons, Dr Charles Severance

- [A Practical Introduction to Python Programming](#), Creative Commons, Brian Heinold

- [ISTE 1359 Introduction to Scripting Languages: Python](#), Creative Commons, Richard Baldwin

Python Tutorials

- [A Beginner's Python Tutorial](#)

- [AskPython.com](#) (Python reference and examples.)

- [ehmatthes.github.io/pcc_2e/cheat_sheets/cheat_sheets/](#) (Python Cheat Sheets)

- [developers.google.com/edu/python](#)

- [Hands-on Python Tutorial](#)

- [How to Write Beautiful Code with PEP 8](#) (Python coding conventions tutorial for readable code.)

- [How To Think Like a Computer Scientist - Interactive Version](#)

- [How to Think Like a Computer Scientist](#)

- [Hitchhiker's Guide to Python](#)

- [Invent with Python](#) *(Free online Python books by Al Sweigart)*

- [ITSE 1359 Introduction to Scripting Languages: Python](#) (Excellent online book to learn Python written by a community college instructor)

- [ITSE 1359 Python Scripting](#) (Updated online course written by the same instructor.)

- [learnpython.org](#)

- [Non-Programmer's Tutorial for Python 3](#)

- [The Python Tutorial](#)

- [The Python Tutorial -- 6. Modules](#)

- [Python3 Tutorial](#)

- [Program Arcade Games With Python And Pygame](#)

- [tutorialspoint -- Python Tutorial](#)

- [RealPython](#) (Lots of great free tutorials.)

- [The Python Language Reference](#)

- [Python Scientific Lecture Notes](#)

- [The Python Standard Library](#)

- [Python Tutor](#) (Online visualization of Python and Java code execution)

- [StackOverflow.com](#) (Programming questions asked and answered.)

- [TkDocs](#)

C++ Tutorials

- [Bucky's C++ Programming Tutorials Playlist](#)

- [classes.mst.edu/compsci1570/](#)

- [cpluplus.com](#)

- [guru99.com/cpp-programming-tutorial.html](#)

- [programiz.com/cpp-programming](#)

- [tutorialspoint.com/cplusplus](#)

- [w3schools.com/cpp](#)

Java Tutorials

- [How To Think Like a Computer Scientist](#)

- [java-made-easy.com](#)

- [tutorialspoint -- Java Tutorial](#)

- [w3schools.com/java](#)

C# Tutorials

- [C# Corner](#)

- [Free Code Camp](#)

- [Microsoft Learn C#](#)

- [tutorialspoint – C# Tutorial](#)

Video Tutorials

YouTube has lots of tutorials on almost any programming language. Each of these is a collection of tutorials for various languages.

- Corey Schafer

- Freecodecamp

- NeuralNine

- Programming with Mosh

- Udemy (Lots of great classes for low cost. They have sales all the time.)

Python IDE's

- JetBrains (Free Educational Licenses for all their professional development tools, including Pycharm.)

- PyCharm Community Edition (Open source free edition)

- Thonny (Python IDE for beginners, has visual debugging)

- Visual Studio Code (Open source Python and other languages code editor from Microsoft)

   o Visual Studio Code Tutorials (Python)

Java IDE's

- Eclipse (Open source IDE with JSP web and GUI builder)

- IntelliJ IDEA (Open source free community edition)

- JetBrains (Free educational Licenses for all their professional development tools, including IntelliJ.)

- JGrasp (Simple Java IDE)

- Visual Studio Code (Open source IDE sponsored by Microsoft)

   o Visual Studio Code Tutorials (Java)

Visual Studio Community Edition

- visualstudio.microsoft.com/vs/community

Online IDE's

- [CodeSkupltor3](#) (Collaborative Online Python editor)

- [CodePen](#) (Online HTML, CSS, Javascript editor)

- https://wandbox.org/ (C++ compiler)

- [Compiler Explorer](#) (C++ compiler)

- [Online GDB](#) (Online IDE for almost any language)

- [Repl.it](#) (Online IDE for almost any language)

- [Skulpt](#) (Online Python interpreter)

- [TIO](#) (Try It Online)

- [Trinket.io](#) (Online Python IDE)

JSON to Java and C# POJO Converters

- [codebeautify.org/json-to-java-converter](#)

- [json2csharp.com/json-to-pojo](#)

Robotics & Microcontrollers

- [Adafruit](#) (Microcontroller parts and lots of good tutorials)

- [Arduino](#) (The Arduino IDE)

- [Banggood](#) (Chinese supplier of microcontroller components)

- [Gearbest](#) (Chinese supplier of microcontroller components)

- [A Gentle Introduction to Robotics](#): Volume 1: mBlock and the mBot, Charles McKnight

- [Hackster](#) (Microcontroller tutorials and projects)

- [Instructables](#) (Microcontroller tutorials and projects)

- http://learn.makeblock.com/en/makeblock-app Control and program your robot with bluetooth from a portable device.

- http://learn.makeblock.com Learning resources for the mbot.

- http://forum.makeblock.com MakeBlock user forums.

- [mBlock](#) software for programming from a computer

- [Makeblock](#) (Home of the might mBot)

- [MagPi Magazine](#) (Free magazine about the Raspberry Pi)

- [Sparkfun](#) (Microcontroller components and lots of good tutorials)

ASCII Art

- [ASCII Art](#) (Decorate your console programs)

- [GetEmoji.com](#) (Put some emojis in your code.)

- [Pixabay.com](#) (Free images for programs)

- [Unicode Tables](#) (Add some 👇 😀 🚂 🥎 to your code.)

Free Public Web API's

- https://any-api.com

- https://apilist.fun

- https://github.com/public-apis/public-apis

- https://mixedanalytics.com/blog/list-actually-free-open-no-auth-needed-apis

- https://public-apis.io

- jsonplaceholder.typicode.com/ (Test API with fake JSON data)