

Programming Resources

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- [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 in this course 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 Recommended Text

Python Crash Course, 2nd Edition, 2019, Eric Matthes, no starch press, ISBN: 978-1-59327-928-8

Programming Resources

- [AskPython.com](#) (Python reference and examples.)
- https://ehmatthes.github.io/pcc_2e/cheat_sheets/cheat_sheets/ (Python Cheat Sheets)
- [Non-Programmer's Tutorial for Python 3](#)
- [How To Think Like a Computer Scientist - Interactive Version](#)
- [How to Think Like a Computer Scientist](#)
- [The Hitchhiker's Guide to Python](#)
- [Invent with Python](#) (*Free online Python books by Al Sweigart*)
- [Pixabay.com](#) (Free images for programs)
- [Programming Notes](#) (A little bit of everything, including Java games)
- [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](#)

Training and Tutorials

- [A Beginner's Python Tutorial](#)
- [Coursera](#) (Free courses from affiliated schools.)

- [C# Corner](#)
- [Free Code Camp](#)
- <https://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](#)
- [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](#)
- [Microsoft Learn C#](#)
- [The Python Tutorial](#)
- [The Python Tutorial -- 6. Modules](#)
- [Python3 Tutorial](#)
- [Program Arcade Games With Python And Pygame](#)
- [RealPython](#) (Lots of great free tutorials.)
- [tutorialspoint – C# Tutorial](#)
- [tutorialspoint -- Python Tutorial](#)
- [tutorialspoint -- Java Tutorial](#)
- [Udemy](#) (Lots of great classes for low cost. They have sales all the time.)
- [YouTube](#) (Lots of free video tutorials)

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)
 - [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)
 - [Visual Studio Code Tutorials](#) (Java)

Visual Studio Community Edition for C#

- visualstudio.microsoft.com/vs/community

JSON to Java and C# POJO Converters

- codebeautify.org/json-to-java-converter
- json2csharp.com/json-to-pojo

Online IDE's

- [CodeSkulptor3](#) (Collaborative Online Python editor)
- [CodePen](#) (Online HTML, CSS, Javascript editor)
- [Online GDB](#) (Online IDE for almost any language)
- [Repl.it](#) (Online IDE for almost any language)
- [Skulpt](#) (Online Python interpreter)
- [Trinket.io](#) (Online Python IDE)

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.)
- [Unicode Tables](#) (Add some 🇺🇸 😊 🚂 🏏 to your code.)

Free Public Web API's

- <https://any-api.com>
- <https://apistlist.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)