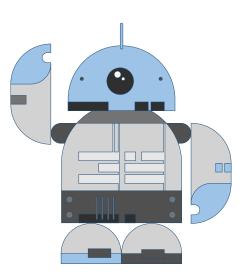


Al Planning for Robot Systems

Python Resources



Websites



- The Python Tutorial This is the official tutorial. It covers all the basics.
- <u>Google Python Class</u> The class includes written materials, lecture videos, and lots of code exercises to practice Python coding.
- <u>The Python Guru</u> -You will learn everything you need to know about python, each lesson expands on the previous one, so it is recommended to go through topics step by step.
- W3schools A comprehensive learning resource for both beginners and advanced python programmers.
- <u>Real Python</u> A repository of free and in-depth Python tutorials created by a diverse team of professional Python developers.
- <u>Learn Python</u> It has an interactive Python interpreter built into the site that allows you to go through the lessons without having to install Python locally.
- <u>CheckiO</u> A gamified approach to learning Python. Questions of varying difficulties come in the form of game missions.



Books

- <u>A Byte of Python</u> An excellent beginner programmer's guide to python. The book can be downloaded form the attached link and is also available to read online through <u>this link</u>.
- The Python Cheat Sheet Courtesy of Python Crash Course
- Automate The Boring Stuff with Python



Visualisation Tools

- PowerPoint
- Unity



Libraries

- <u>Python.org</u> Provides a list of some of the most commonly used
 Python libraries.
- <u>Gameboard</u> Provides a GUI for 2D arrays to make it easy to vreate board-style games.
- Tkinter Provides simple way to create interfaces and GUI elements.
- NumPy Offers comprehensive mathematical functions.

Libraries (Machine learning & Deep Learning)



- Pandas A library for data manipulation and analysis.
- <u>Scikit-learn</u> Simple and efficient tool for predictive data analysis.
- <u>Keras</u> A library that is used for artificial neural networks.
- <u>Tensorflow</u> A library for machine learning and artificial intelligence.
- PyTorch Used for deep learning applications such as computer vision and NLP.
- Matplotlib One of the most commonly used plotting libraries.
- <u>Seaborn</u> Data visualisation library built on top of matplotlib.
- Plotly express Provides functions to visualise a variety of types of data.