



CyENG 312: Tutorials on Coding Example – Fall 2022

Instructor: Dr. Shayan (Sean) Taheri

Data Structure – Coding Examples

01. [Data Structures in C++ — Part 1. Implementing common data structures in... | by Vijini Mallawaarachchi | Towards Data Science](#)
02. [C++ | Data Structures Code Examples \(happycodings.com\)](#)
03. [Stack Data Structure In C++ With Illustration \(softwaretestinghelp.com\)](#)
04. <https://cplusplus.com/doc/tutorial/structures/>
05. [C++ Data Structures \(tutorialspoint.com\)](#)
06. [9 C++ data structures you need to know for your coding interview \(educative.io\)](#)
07. [fullText.pdf \(clemson.edu\)](#)
08. [Data Structures in C++ - TechVidvan](#)
09. [Data Structure Programs using C and C++ - Solved Data Structure Programs \(includehelp.com\)](#)
10. [Stack Data Structure and Implementation in Python, Java and C/C++ \(programiz.com\)](#)
11. [C++ Tutorial: Linked List - 2020 \(bogotobogo.com\)](#)
12. [Hash Table in C/C++ - A Complete Implementation | DigitalOcean](#)
13. [C++ STL: Policy based data structures - Codeforces](#)
14. [Abstract Data Types in C++ — Programming and Data Structures 0.2 documentation \(eecs280staff.github.io\)](#)
15. [Data Structures in C++ - Sanfoundry](#)
16. [Arrays as Data Structure in C/C++ Programming – MYCPLUS - C and C++ Programming Resources](#)
17. [Algorithms and data structures in C/C++ - Cprogramming.com](#)
18. [C++ for Programmers: C++'s Built-In Data Structures Cheatsheet | Codecademy](#)
19. [Data Structures and Algorithms Problems in C++ using STL | by Coding Freak | Techie Delight | Medium](#)
20. [Implementation of A* \(redblobgames.com\)](#)
21. [Red Black Trees \(with implementation in C++, Java, and Python\) | Algorithm Tutor](#)
22. [Chapter 7. Designing lock-free concurrent data structures - C++ Concurrency in Action: Practical Multithreading \(manning.com\)](#)
23. [C++ Structures \(struct\) \(w3schools.com\)](#)
24. [Implementing Binary tree in C++ \(opengenius.org\)](#)
25. [Section 1: C++ data structures – CS 61 2021 \(harvard.edu\)](#)
26. [Linked List Data Structure \(programiz.com\)](#)
27. [Sets in C++ Explained with Examples | Udacity](#)
28. [Top 50+ Data Structure Interview Questions and Answers \(2022\) - InterviewBit](#)

Algorithm – Coding Examples

01. [C++ Algorithm | Examples of C++ Algorithm with Detail Explanation \(educba.com\)](#)
02. [C++ Basic Algorithm - Exercises, Practice, Solution - w3resource](#)
03. [The 114 standard C++ algorithms. Introduction | by Šimon Tóth | ITNEXT](#)
04. [Top 5 Beautiful C++ std Algorithms Examples - CodeProject](#)
05. [C++ | Algorithms Code Examples \(happycodings.com\)](#)
06. [C++ Program for QuickSort - GeeksforGeeks](#)
07. [Dijkstra's Algorithm in C++ | Shortest Path Algorithm | FavTutor](#)
08. [GitHub - daancode/a-star: A* algorithm C++ implementation.](#)
09. [BFS Graph Algorithm\(With code in C, C++, Java and Python\) \(programiz.com\)](#)
10. [QuickSort \(With Code in Python/C++/Java/C\) \(programiz.com\)](#)
11. [Linear Search Algorithm with C++ Code | Data Structures & Algorithms - Simple Snippets](#)
12. [Quick Sort In C++ With Examples \(softwaretestinghelp.com\)](#)
13. [Insertion Sort In C++ With Examples \(softwaretestinghelp.com\)](#)
14. [C++ Algorithms - Sanfoundry](#)
15. [How to implement Dijkstra's Algorithm in C++ \(educative.io\)](#)
16. [Kmp Algorithm C++ With Code Examples \(folkstalk.com\)](#)
17. [Red Black Trees \(with implementation in C++, Java, and Python\) | Algorithm Tutor](#)
18. <https://cplusplus.com/reference/algorithm/>
19. [Dijkstra's Algorithm: C++, Python Code Example \(guru99.com\)](#)
20. [Algorithms library - cppreference.com](#)
21. [C++ Source Codes \(fsu.edu\)](#)
22. [Algorithms in C++. Complete Search, Greedy, Divide and... | by Vadim Smolyakov | Towards Data Science](#)
23. [Dynamic Programming in C++ - Cprogramming.com](#)
24. [Merge Sort Algorithms and Examples| Merge Sort using Java, C++ \(mygreatlearning.com\)](#)
25. [C++ Core Guidelines \(isocpp.github.io\)](#)
26. [C++17 in details: Parallel Algorithms - C++ Stories \(cppstories.com\)](#)
27. [A Genetic Algorithm Function Optimizer in C++ - technical-recipes.com](#)
28. [Boruvka's algorithm for Minimum Spanning Tree in C++ - CodeSpeedy](#)
29. [Crack the top 40 C++ coding interview questions \(educative.io\)](#)

Operating System – Coding Examples

01. [How to develop an operating system using - C++ Articles \(cplusplus.com\)](#)
02. [GitHub - wichtounet/thor-os: Simple operating system in C++, written from scratch](#)
03. [Writing OS Independent Code in C/C++ - GeeksforGeeks](#)
04. [Writing your own Operating System | by Chamath Abeysinghe | Medium](#)
05. [Building your own operating system - CodeProject](#)
06. [Archived | Building your own memory manager for C/C++ projects - IBM Developer](#)
07. [ewili13_submission_14.pdf \(upenn.edu\)](#)
08. [Make a Simple Operating System : 11 Steps \(with Pictures\) - Instructables](#)
09. [C++ Memory Management: new and delete \(programiz.com\)](#)
10. [C++ Tutorial: Memory Allocation - 2020 \(bogotobogo.com\)](#)
11. [Why the C Programming Language Still Runs the World | Toptal](#)
12. [A hands-on Win32 Windows operating system programming used to understand the Windows OS internal construct, functionalities and technologies \(tenouk.com\)](#)
13. [Bare Bones - OSDev Wiki](#)
14. [Programming Guide :: CUDA Toolkit Documentation \(nvidia.com\)](#)
15. [Memory Management in C++ | Examples to Implement \(educba.com\)](#)
16. [How to write a simple operating system in assembly language \(sourceforge.net\)](#)
17. [Linux Tutorial: POSIX Threads \(cmu.edu\)](#)
18. [high-level-cpp-rcu_informatics_2017.pdf \(martong.github.io\)](#)
19. [Microsoft Word - PortableSystems.doc \(appinf.com\)](#)
20. [ARM Compiler toolchain Using the Compiler Version 5.01](#)
21. [Operating Systems: Processes \(uic.edu\)](#)
22. [www2.hawaii.edu/~takebaya/ics111/process_of_programming/process_of_programming.html](#)
23. [Sharing memory between processes - 1.54.0 \(boost.org\)](#)
24. [Practical Application for Operating Systems: Code for Schedule Processes | Study.com](#)
25. [Write your Own Virtual Machine \(jmeiners.com\)](#)
26. [Linux Serial Ports Using C/C++ | mbedded.ninja](#)
27. [Getting Started with the LLVM System — LLVM 16.0.0git documentation](#)
28. [Unix And C/C++ Runtime Memory Management For Programmers \(uohyd.ac.in\)](#)