

Download Art Of Programming : Computer Science With C

This magnificent tour de force presents a comprehensive overview of a wide variety of algorithms and the analysis of them. Now in its third edition, *The Art of Computer Programming, Volume I: Fundamental Algorithms* contains substantial revisions by the author and includes numerous new exercises. Although this book was conceived several decades ago, it is still a timeless classic. This work sets out to provide a solid introduction to computer science that emphasizes software engineering and the development of good programming style. Computer science is the study of processes that interact with data and that can be represented as data in the form of programs. It enables the use of algorithms to manipulate, store, and communicate digital information. A computer scientist studies the theory of computation and the practice of designing software systems. Its fields can be divided into theoretical and practical disciplines. Computer programming is the process of designing and building an executable computer program for accomplishing a specific computing task. Programming involves tasks such as analysis, generating algorithms, profiling algorithms' accuracy and resource consumption, and the implementation of algorithms in a chosen programming language (commonly referred to as coding).