

# **Programming 0, I, and II**

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# Preface

# 1 Reading List

## 1.1 Programmign 0

- Programming from First Principles. Bornat
- Karel the Robot - A Gentle Introduction to the Art of Programming. Pattis

### Pascal

- Programming via Pascal. Rohl
- Writing Pascal Programs. Rohl
- Pascal at Work and Play. Forsyth
- A Practical Introduction to Pascal. Addyman
- Introduction to Computing with Pascal. Biggs

### Python

- Practical Programming - An Introduction to Computer Science Using Python 3.6. Gries
- Explorations in Computing - An Introduction to Computer Science and Python Programming. Conery
- A Beginners Guide to Python 3 Programming. Hunt
- Fundamentals of Pthon - First Programs. Kenneth A Lambert
- Python for Everyone (3rd ed). Cay Horstmann, Rance necaise
- Learn Python Visually - Creating Coding with Processing.py
- Python Crash Course - A Hands-on, Project-based Guide. Eric Matthes
- Learning Python - Powerful Object Oriented Programming. Mark Lutz
- Python Programming Exercises - Gently Explained. Sweigart
- Invent Your Own Computer Games with Python. Al Sweigart
- Beyond the Basic Stuff with Python - Best Practices for Writing Clean Code. Al Sweigart

### Processing

- Processing - An Introduction to Programming. Nyhoff

## 1.2 Programming I

### Competitive Programming & Algorithmic Thinking

- Algorithms and Programming - Problems and Solutions. Shen
- How to Solve it By Computer. Dromey
- Learning Algorithms Through Programming and Puzzle Solving. Kulikov, Pevzner
- Principles of Algorithmic Problem Solving. Sannemo
- Algorithmic Thinking, 2nd ed. Zingaro
- Problem Solving in Data Structures & Algorithms Using C++. Hemant Jain
- Competitive Programming in Python. Duerr
- Problem Solving & Computer Programming. Grogono, Nelson
- Problem Solving Principles - Programming with Pascal. Prather
- Primes and Programming - Computers and Number Theory. Giblin
- Exploring Mathematics with Your Computer. Engel
- Programming Concepts - A Second Course. Jones

### Insightful and Theoretical

- Theoretical Introduction to Programming. Mills
- Programming for Mathematicians. O'Shea
- Reasoned Programming. Broda
- Practical Formal Software Engineering - Wanting the Software You Get. Mills
- What Computing is All About. Snepsheut
- Elements of Programming. Stepanov, McJones
- Isomorphism - Mathematics of Programming. Liu
- The Craft of Programming. Reynolds
- The Logic of Programming. Hehner
- Informatik - Eine Grundlegende Einfuehrung, Vol I - IV. Broy
- Logische und Methodische Grundlagen der Programmm- und Systementwicklung - Datenstruktur, funktionale, sequenzielle, und objektorientierte Programmierung. Broy
- Concepts, Techniques, and Models of Computer Programming. Van Roy, Haridi
- Elements of Programming. Alexander Stepanov, Paul McJones
- From Mathematics to Generic Programming. Alexander A. Stepanov

### Recursion Specific

- Introduction to Recursive Programming. Rubio-Sanchez
- Recursion Via Pascal. Rohl
- Thinking Recursively in Java. Roberts
- The Recursive Book of Recursion. Sweigart

## **Practical & Program Design**

- The Practice of Programming. Kernighan, Pike
- Writing Efficient Programs. Bentley
- Elements of Programming Style. Kernighan, Plauger