

# TypeScript Algorithms

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# Chapter 1

## Introduction

In-progress book about algorithms and data structures in TypeScript.

# Chapter 2

## Bits

### 2.1 Bit Parity

### 2.2 Bit Shift Operator

# Chapter 3

## Recursion

### 3.1 Fibonacci Sequence

$$fib_n = fib_{n-2} + fib_{n-1}$$

# Chapter 4

## Contributing

### 4.1 Getting Started

#### 4.1.1 Run Problem Tests

- Install Node Version Manager
- `yarn setup`
- `yarn test --all`

#### 4.1.2 Compile Book

- Install Pandoc (Homebrew)
- Install BasicTeX (Homebrew)
- Install fswatch (Homebrew)
- `make book`
- `open book/output/index.pdf`

### 4.2 Commands

Command	Description
<code>yarn setup</code>	Setup local development environment
<code>yarn test</code>	Run tests
<code>yarn</code>	Generate new LeetCode problem
<code>gen:leetcode</code>	
<code>yarn</code>	Generate new Project Euler problem
<code>gen:project-euler</code>	
<code>make book</code>	Compile book to various formats
<code>make watch</code>	Recompile book automatically when source files change

# Chapter 5

## Resources

- [LeetCode](#)
- [Project Euler](#)
- [The Algorithm Design Manual](#)
- [Elements of Programming Interviews](#)