ZED SHAW'S HARD WAY SERIES

Learn PYTHON the HARD WAY

THIRD EDITION

A Very Simple Introduction to the Terrifyingly Beautiful World of Computers and Code

ZED A. SHAW

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A Very Simple Introduction
to the Terrifyingly Beautiful World
of Computers and Code

Third Edition

Zed A. Shaw

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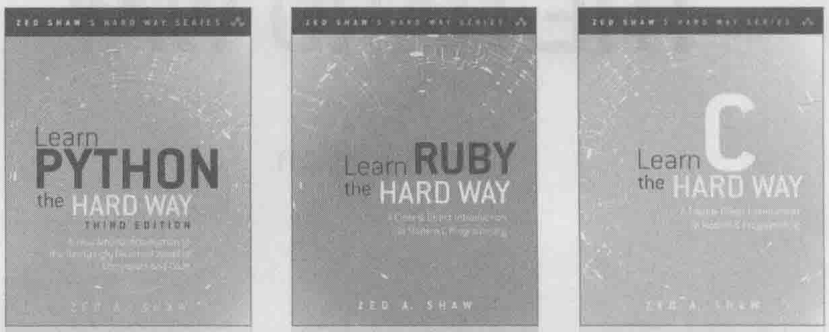

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Zed Shaw's Hard Way Series emphasizes instruction and *making* things as the best way to get started in many computer science topics. Each book in the series is designed around short, understandable exercises that take you through a course of instruction that creates working software. All exercises are thoroughly tested to verify they work with real students, thus increasing your chance of success. The accompanying video walks you through the code in each exercise. Zed adds a bit of humor and inside jokes to make you laugh while you're learning.

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Preface

This simple book is meant to get you started in programming. The title says it's the hard way to learn to write code, but it's actually not. It's only the "hard" way because it uses a technique called *instruction*. Instruction is where I tell you to do a sequence of controlled exercises designed to build a skill through repetition. This technique works very well with beginners who know nothing and need to acquire basic skills before they can understand more complex topics. It's used in everything from martial arts to music to even basic math and reading skills.

This book instructs you in Python by slowly building and establishing skills through techniques like practice and memorization, then applying them to increasingly difficult problems. By the end of the book, you will have the tools needed to begin learning more complex programming topics. I like to tell people that my book gives you your "programming black belt." What this means is that you know the basics well enough to now start learning programming.

If you work hard, take your time, and build these skills, you will learn to code.

Acknowledgments

I would like to thank Angela for helping me with the first two versions of this book. Without her, I probably wouldn't have bothered to finish it at all. She did the copy editing of the first draft and supported me immensely while I wrote it.

I'd also like to thank Greg Newman for doing the cover art for the first two editions, Brian Shumate for early website designs, and all the people who read previous editions of this book and took the time to send me feedback and corrections.

Thank you.

The Hard Way Is Easier

With the help of this book, you will do the incredibly simple things that all programmers do to learn a programming language:

1. Go through each exercise.
2. Type in each sample *exactly*.
3. Make it run.

That's it. This will be *very* difficult at first, but stick with it. If you go through this book and do each exercise for one or two hours a night, you will have a good foundation for moving on to another