Users of this book will gain an understanding of the fundamental concepts of contemporary computer architecture, starting with a Reduced Instruction Set Computer (RISC). An understanding of computer architecture needs to begin with the basics of modern computer organization. The MIPS architecture embodies the fundamental design principles of all contemporary RISC architectures. This book provides an understanding of how the functional components of modern computers are put together and how a computer works at the machine-language level. Well-written and clearly organized, this book covers the basics of MIPS architecture, including algorithm development, number systems, function calls, reentrant functions, memory-mapped I/O, exceptions and interrupts, and floating-point instructions. For employees in the field of systems, systems development, systems analysis, and systems maintenance.

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Customer Reviews

This book in an excellent introduction to Assembly language. What I thought to be very difficult programming language isn't actually such a monster after all. Just a "warning," the assembly language instruction set here is smaller and the processor architecture is less complex than, say, an Intel x86 processor. However, if you want to get a feel of how Assembly language is, this is definitely a good book. The book isn't monstrous in pages so that's a plus. What I like about this fact is, I can actually reread the chapter if I don't think I understood it enough. I gave it 5 stars because
although it is not perfect, it suits my needs for information beyond enough.

It has a lot of examples and lists of commands. You can learn MIPS straight out from this single book. No need to look elsewhere, this is the only book you'll ever need.

Great for teaching the basic but overall i found it to be a little shallow. The examples when you get farther seem to be more and more lacking and you end up feeling like you are just reading code off github which i can do for free.

This book helped me through my Assembly Language course. It is fairly detailed with how to do many program techniques with some understanding, but my teacher was terrible with his explanations of the examples of the book. All in all, this book will get you through to the next step.

If you have a little experience with any flavor of assembly, this book will have you up and running with MIPS32 in no time. It's exactly the sort of book that you need if you already know how assembly works and want to learn the MIPS language. It seems a little short, but it covers things quite well and directly. Topics are addressed in a logical manner, and each topic starts off with basics and moves on to more in-depth issues. Also, the chapters have thought-provoking exercises that really help if you're willing to work them out. Good discussion on programming style and de facto standards for function calls, returns, and special purpose registers. In addition, the book has great appendices, including a complete description of the entire instruction set, ascii chart, and a list of pseudo-ops with their asm translations. The book emphasizes the SPIM environment, but I use MARS and have had no problems thus far.

Taught a class based on this book. Liked having the printed book better than a pdf.

Hard to find any other options out there but pretty good resource

elegant book provided by an excellent seller. thank you

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