Learning Computer Architecture With Raspberry Pi
Synopsis

Use your Raspberry Pi to get smart about computing fundamentals. In the 1980s, the tech revolution was kickstarted by a flood of relatively inexpensive, highly programmable computers like the Commodore. Now, a second revolution in computing is beginning with the Raspberry Pi. Learning Computer Architecture with the Raspberry Pi is the premier guide to understanding the components of the most exciting tech product available. Thanks to this book, every Raspberry Pi owner can understand how the computer works and how to access all of its hardware and software capabilities. Now, students, hackers, and casual users alike can discover how computers work with Learning Computer Architecture with the Raspberry Pi. This book explains what each and every hardware component does, how they relate to one another, and how they correspond to the components of other computing systems. You’ll also learn how programming works and how the operating system relates to the Raspberry Pi’s physical components. Co-authored by Eben Upton, one of the creators of the Raspberry Pi, this is a companion volume to the Raspberry Pi User Guide. An affordable solution for learning about computer system design considerations and experimenting with low-level programming. Understandable descriptions of the functions of memory storage, Ethernet, cameras, processors, and more. Gain knowledge of computer design and operation in general by exploring the basic structure of the Raspberry Pi. The Raspberry Pi was created to bring forth a new generation of computer scientists, developers, and architects who understand the inner workings of the computers that have become essential to our daily lives. Learning Computer Architecture with the Raspberry Pi is your gateway to the world of computer system design.

Book Information

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I was debating giving this book two stars but I decided to give it the benefit of the doubt and consider that there probably is a certain audience that would find this book helpful. That audience is beginning young computer enthusiasts and makers (Arduino/Raspberry Pi) and college sophomores supplementing their basic Digital Design coursework. To start, let's talk about what this book is not, and that I believe most buyers like myself, were hoping it would be. This book is not about how Eben Upton developed the Raspberry Pi. There are no chapters dealing with spec-ing active and passive components, PCB layout, MCU selection, voltage and current considerations, writing firmware, selecting and customizing an OS, programming on-board chips, re-configurable logic, networking chips, or integrating peripherals. What you are basically getting for thirty dollars is Schaum's Outline of Computer Architecture ($3 used) with some updated material and hand-waving at the Raspberry Pi. Perhaps a better description of this book is that of a dumbed down, college sophomore version of the unpleasant yet venerable Patterson and Hennessy CompArch tome we all had the misfortune of reading as an academic, and non-practical, soporific. So really read over the table of contents for this book and realize you are buying a book on generic computer architecture with very little Raspberry Pi specific details. If you think this book is going to give you any practical insights for building your own computer, or how that process works, forget it, this is purely an academic/theoretically introduction covering generic computer basics. Two final points: I highly doubt Eben Upton had much to do with writing this book besides being listed as the author and writing or approving the introduction.
Projects Programming (Raspberry Pi Books, raspberry pi projects, raspberry pi for dummies)
Learning: 25 Learning Techniques for Accelerated Learning - Learn Faster by 300%! (Learning, Memory Techniques, Accelerated Learning, Memory, E Learning, ... Learning Techniques, Exam Preparation)
Learn: Cognitive Psychology - How to Learn, Any Skill or Subject in 21 Days! (Learn, Learning Disability, Learning Games, Learning Techniques, Learning ... Learning, Cognitive Science, Study)

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