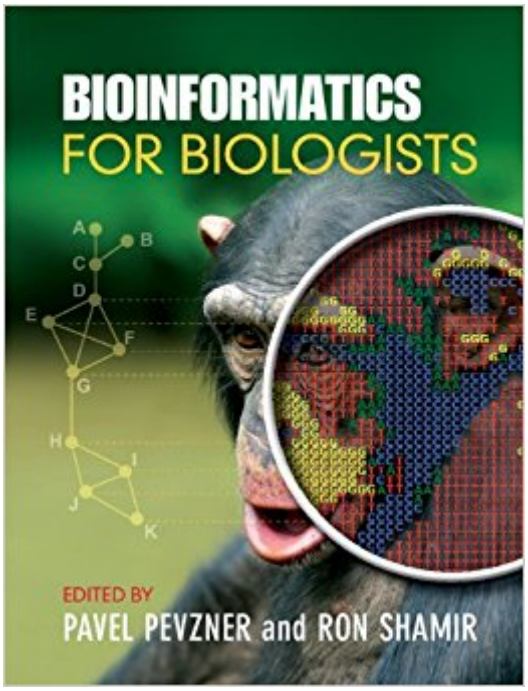
Bioinformatics For Biologists



Synopsis

The computational education of biologists is changing to prepare students for facing the complex datasets of today's life science research. In this concise textbook, the authors' fresh pedagogical approaches lead biology students from first principles towards computational thinking. A team of renowned bioinformaticians take innovative routes to introduce computational ideas in the context of real biological problems. Intuitive explanations promote deep understanding, using little mathematical formalism. Self-contained chapters show how computational procedures are developed and applied to central topics in bioinformatics and genomics, such as the genetic basis of disease, genome evolution or the tree of life concept. Using bioinformatic resources requires a basic understanding of what bioinformatics is and what it can do. Rather than just presenting tools, the authors - each a leading scientist - engage the students' problem-solving skills, preparing them to meet the computational challenges of their life science careers.

Book Information

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Customer Reviews

I bought this for my bioinformatics class and I love it. In addition to the book there are slides online

that provide supplementary information for each chapter which is great. This has made bioinformatics much more simple than I expected it to be. Each chapter can be read alone which makes the book versatile and great for a variety of classes. Even complicated ideas are presented in an easy to understand fashion, so people without a math or computer science background can understand the problem (even if they wouldn't know how to solve it without the help of the book). I highly recommend this book for any biologists (or CS ppl) who want to learn more about bioinformatics.

The first book that tries to uncover computational ideas behind modern bioinformatics. I see no shortage of books (or should I say manuals?) that treat me as a dummy and do not even try to explain what is under the hood of all these bioinformatics algorithms. After reading this book I finally understood how NGS fragment assemblers work and how genetic fingerprinting is done.