Bioinformatics Programming Using Python: Practical Programming For Biological Data
Powerful, flexible, and easy to use, Python is an ideal language for building software tools and applications for life science research and development. This unique book shows you how to program with Python, using code examples taken directly from bioinformatics. In a short time, you'll be using sophisticated techniques and Python modules that are particularly effective for bioinformatics programming.

Bioinformatics Programming Using Python is perfect for anyone involved with bioinformatics -- researchers, support staff, students, and software developers interested in writing bioinformatics applications. You'll find it useful whether you already use Python, write code in another language, or have no programming experience at all. It's an excellent self-instruction tool, as well as a handy reference when facing the challenges of real-life programming tasks.

Become familiar with Python's fundamentals, including ways to develop simple applications.

Learn how to use Python modules for pattern matching, structured text processing, online data retrieval, and database access.

Discover generalized patterns that cover a large proportion of how Python code is used in bioinformatics.

Learn how to apply the principles and techniques of object-oriented programming.

Benefit from the "tips and traps" section in each chapter.

**Book Information**

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**Customer Reviews**

Comparing to Perl, Python has a quite lagged adoption as the scripting language of choice in the field of bioinformatics, although it is getting some moment recently. If you read job descriptions for bioinformatics engineer or scientist positions a few year back, you barely saw Python mentioned,
even as "nice to have optional skill". One of the reasons is probably lacking of good introductory level bioinformatics books in Python so there are, in general, less people thinking Python as a good choice for bioinformatics. The book "Beginning Perl for Bioinformatics" from O Reilly was published in 2001. Almost one decade later, we finally get the book "Bioinformatics Programming Using Python" from Mitchell Model to fill the gap. When I first skimmed the book "Bioinformatics Programming Using Python", I got the impression that this book was more like "learning python using bioinformatics as examples" and felt a little bit disappointed as I was hoping for more advanced content. However, once I went through the book, reading the preface and everything else chapter by chapter, I understood the main target audiences that author had in mind and I thought the author did a great job in fulfilling the main purpose. In modern biological research, scientists can easily generate large amount of data where Excel spreadsheets that most bench scientists use to process limiting amount of data is no longer an option. I personally believe that the new generation of biologists will have to learn how to process and manage large amount inhomogeneous data to make new discovery out of it. This requires general computational skill beyond just knowing how to use some special purpose applications that some software vendor can provide.

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