

Data Science for All Authors Q&A

<https://www.youtube.com/watch/2JAU71MKrdI>

Data has always fascinated me. And the connection of statistics and data science to everyday life hooked me right away.

I majored in statistics in college, went to graduate school for statistics, and immediately pursued an education focused faculty position in statistics. But I've always identified as a data scientist. The marriage of statistics and computer science has always seemed natural to me.

We believe that students from every background, whether it's history or business or agriculture or science or mathematics, all of these students need to have this strong foundation in data science in order to do well in their own path of study.

I was especially excited to build a data science book that could be used for courses across a wide variety of levels. In particular, there do not have to be any statistics prerequisites for this book. There don't have to be any computer science prerequisites for this book. Students don't need calculus or even precalculus for this book. I'm convinced and worked hard to show that working with data, including modeling all the way up to machine learning, can be understood by all. Whether you're a math major or a history major, using R or Excel, you can understand and do data science.

You may remember the quote, "I hear and I forget. I see and I remember, I do and I understand." We take this to heart both in all of our educational efforts and our construction of this text. In particular, every chapter includes many "Try It Yourself" and "Applying the Concepts" activities which get students' hands on data experience actually doing the data science they're learning about and applying important data literacy ideas and skills. By continually working with data as part of the learning process, students will come out prepared to begin any new data related experience. What we ask the students to do is to read it and then try it yourself. Do an exercise, then read some more and then try it yourself. And so this rinse and repeat balance is what our book is really focused on.

We believe that instructors know their students best and the right tools for them. We give instructors the option of using Excel, StatCrunch, R, or Python. Or a combination. Want to use artificial intelligence to help students learn data science? We have instructor-facing documents to help with that also.

We provide section overview videos as well as video walkthroughs of all of our "Try It Yourself" activities for all of our supported tools. You heard that right. There's a video walkthrough of every "Try It Yourself" activity in Excel, StatCrunch, R, and Python.

Many instructors are teaching data science for the first time. We want to support instructors with resources that they need to teach data science. We include

PowerPoint slides, instructors' manuals, solutions, student exercises, and instructor aides like artificial intelligence support documents. There's a video walkthrough of every "Try It Yourself" activity in Excel, StatCrunch, R, and Python. These are all fantastic materials to supplement students' experience with the text to really help enrich and cement their understanding of the material. They get to hear us, in addition to the text and their own instructors, explain these critical data literacy ideas.