**Testing and data science**

* Problems that could occur in data science aren’t always easily detectable; you might have values being encoded incorrectly, features being used inappropriately, or unexpected data breaking assumptions.
* To catch these errors, you have to check for the quality and accuracy of your *analysis* in addition to the quality of your *code*. Proper testing is necessary to avoid unexpected surprises and have confidence in your results.
* Test-driven development (TDD): A development process in which you write tests for tasks before you even write the code to implement those tasks.
* Unit test: A type of test that covers a “unit” of code—usually a single function—independently from the rest of the program.

**Resources**

* Four Ways Data Science Goes Wrong and How Test-Driven Data Analysis Can Help: [Blog Post](https://www.predictiveanalyticsworld.com/patimes/four-ways-data-science-goes-wrong-and-how-test-driven-data-analysis-can-help/6947/)
* Ned Batchelder: Getting Started Testing: [Slide Deck](https://speakerdeck.com/pycon2014/getting-started-testing-by-ned-batchelder) and [Presentation Video](https://www.youtube.com/watch?v=FxSsnHeWQBY)