**Test-driven development and data science**

* *Test-driven development*: Writing tests before you write the code that’s being tested. Your test fails at first, and you know you’ve finished implementing a task when the test passes.
* Tests can check for different scenarios and edge cases before you even start to write your function. When start implementing your function, you can run the test to get immediate feedback on whether it works or not as you tweak your function.
* When refactoring or adding to your code, tests help you rest assured that the rest of your code didn't break while you were making those changes. Tests also helps ensure that your function behavior is repeatable, regardless of external parameters such as hardware and time.

Test-driven development for data science is relatively new and is experiencing a lot of experimentation and breakthroughs. You can learn more about it by exploring the following resources.

* [Data Science TDD](https://www.linkedin.com/pulse/data-science-test-driven-development-sam-savage/)
* [TDD for Data Science](http://engineering.pivotal.io/post/test-driven-development-for-data-science/)
* [TDD is Essential for Good Data Science Here's Why](https://medium.com/@karijdempsey/test-driven-development-is-essential-for-good-data-science-heres-why-db7975a03a44)
* [Testing Your Code](http://docs.python-guide.org/en/latest/writing/tests/) (general python TDD)