Collaborating with strangers from the internet: Scientific Open-Source Software

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The importance of open-source software for science is continuously growing. The reasons for this success are multiple: the absence of cost, the availability of cutting-edge software that may not be commercially profitable, and the ability to extend the functionalities of existing code.

In academia, the last point is crucial, as we are constantly facing unprecedented problems that cannot be addressed by existing tools. Thus, we profit greatly from the ability to Frankenstein a solution to our problems from existing parts, without requiring to recreate life from scratch. It is then natural to share our monsters, and continue the cycle, which can lead to long-standing collaborations.

However, this initially requires daunting and intimidating steps: dissecting existing software to modify them, asking the community for help in our experiments, and putting the results at the mercy of a harsh judgmental world.

In this talk, I will share my own experience with scientific open-source scientific software, which started 9 years ago by filling a bug report, and continues today as I am maintaining a couple of packages. In particular, I will try to lower the barrier of entry for potential contributors. To this end, I will describe and demystify the social structure of open-source projects, showing that, while intimidating, they are normally nothing to be feared. I will also show that any level of involvement is valuable, both for the project to which they contribute and for the contributors themselves, as it is a rare opportunity to learn from and connect with people dedicated to the technical parts of science.

For an overview of my contributions, see my github page: https://github.com/Kolaru