1. Better Code, Better Sharing: On the Need of Analyzing Jupyter Notebooks

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Abstract: By bringing together code, text, and examples, Jupyter notebooks have become one of the most popular means to produce scientific results in a productive and reproducible way. As many of the notebook authors are experts in their scientific fields, but laymen with respect to software engineering, one may ask questions on the quality of notebooks and their code. In a preliminary study, we experimentally demonstrate that Jupyter notebooks are inundated with poor quality code, e.g., not respecting recommended coding practices, or containing unused variables and deprecated functions. Considering the education nature of Jupyter notebooks, these poor coding practices, as well as the lacks of quality control, might be propagated into the next generation of developers. Hence, we argue that there is a strong need to programmatically analyze Jupyter notebooks, calling on our community to pay more attention to the reliability of Jupyter notebooks. (0 refs)
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Database: Inspec
Data Provider: Engineering Village