JupyterIDE

Promoting JupyterLab features and extensions that facilitate collaboration among researchers and RSEs

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BACKGROUND

Research software engineers exist on a **continuum of different backgrounds** and skill sets, often using different tools and approaches for programming. Preferred development platforms each have their own advantages which cater to various users, but when programmers **collaborate closely** it can be beneficial to use a shared platform to encourage the shared use of shared practices. JupyterLab, an extensible platform, is capable of supporting a wide variety of development approaches and practices. We propose **JupyterLab as an ideal platform for collaboration** among programmers that prefer platforms ranging from Jupyter Notebooks to more traditional IDEs. We introduce JupyterIDE, a set of tutorials to assist interdisciplinary teams in converging on a set of shared best practices centered around JupyterLab.

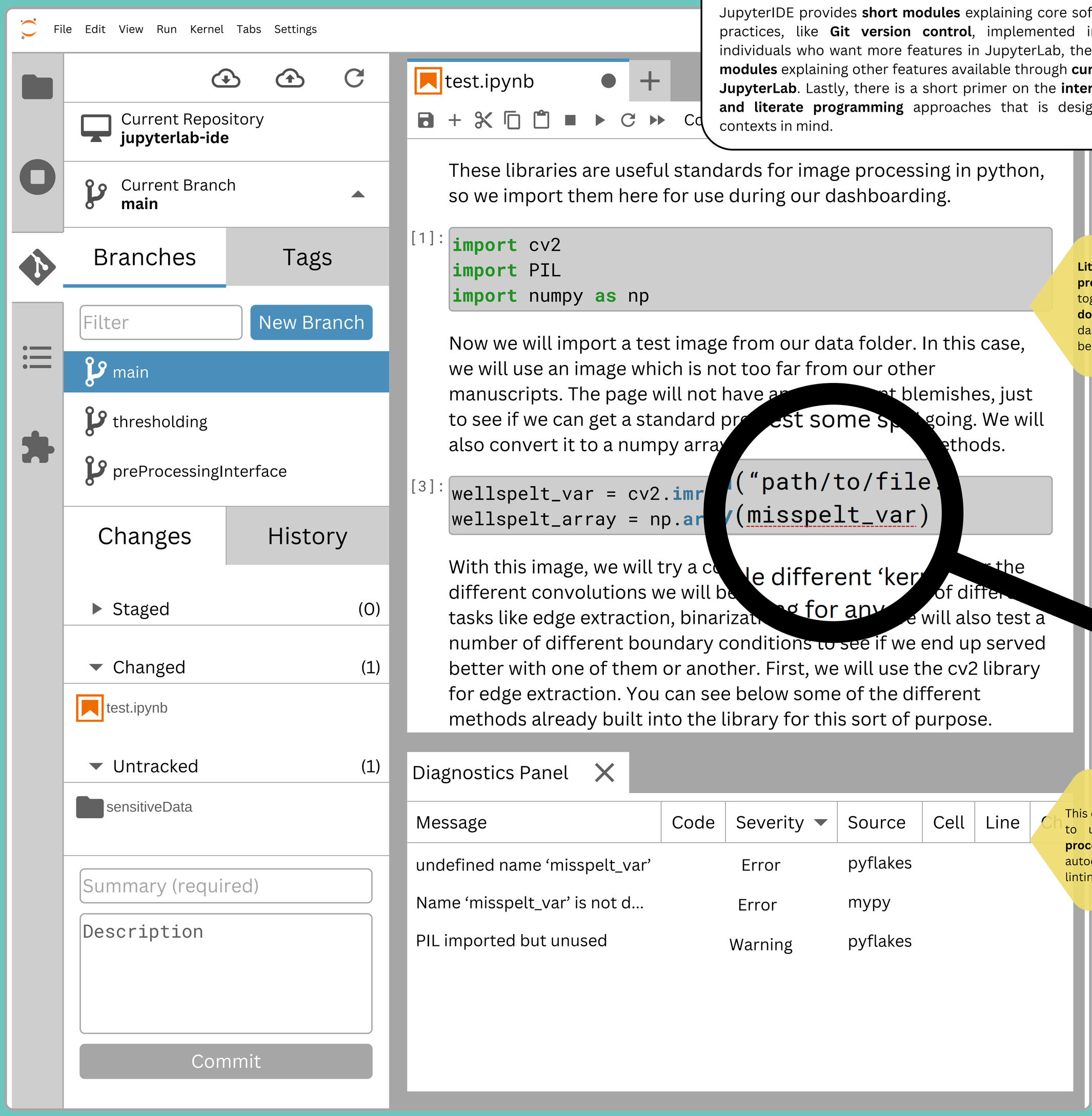
POTENTIAL NEEDS:

Domain Researchers and **Software Engineers** can benefit from a shared coding paradigm for research software

- Domain Researchers may benefit from a solid understanding of basic version control
- Software Engineers may want a development tool with more features

SOLUTION

JupyterIDE provides **short modules** explaining core software development practices, like **Git version control**, implemented in JupyterLab. For individuals who want more features in JupyterLab, there are **independent modules** explaining other features available through **curated extensions for JupyterLab**. Lastly, there is a short primer on the **intersection of iterative and literate programming** approaches that is designed with research contexts in mind.



Literate and iterative programming, used together, **create documentation** for dashboarding that can be replicated afterwards

jupyterlab-lsp

This **extension** allows users to use **language server processing**, including autocompletion, code linting, and **diagnostics**.

JUPYTER-IDE [ALSO] HAS:

Domain Researchers and **Software Engineers** can benefit from a short primer and example of literate programming for research contexts

- Domain Researchers may benefit from a self-paced tutorial on the Git extension and version control
- Software Engineers may want a curated list of extensions with tutorials giving users access to featurs like language server processing

REPO

Follow the link to access the **GitHub repository** and give it a

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better scientific software

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