Streamlining Dark Matter Data Analysis with Docker and JupyterLab

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INTRO

- Getting my software to work on your computer will take months. It isn't always easy, or worthwhile
- Goal is to provide a one-stop shop for data analysis across a collaboration

APPROACH

1. Analysis software is packaged in a portable way, such as Python install script
2. Software gets installed into a Docker container using my Dockerfile
3. JupyterLab provides interface for file interaction, text editing, etc.
4. Kubernetes is used to orchestrate deployment and management of finalized containers

RESULTS

- Eliminates users' need for complicated software installation
- Users all work within the same software environment, streamlining maintenance and development

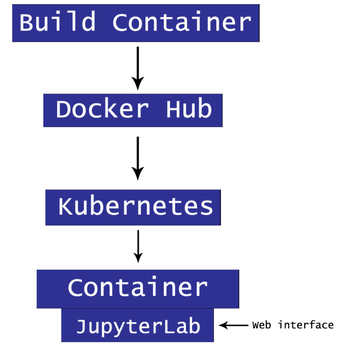
SEEKING SOLUTIONS

- Need an effective way to test changes to code without rebuilding the entire image
- Automate build process when relevant code is updated
- An efficient caching system, for longer lived containers

Denver

CDM Super

Dark matter data analysis made **easy.** **Complex software** environments through **Docker containers**. No installation necessary!



The Dockerfile

Take a picture to **see the code!**

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github.com/glass-ships