





```
FROM continuumio/miniconda3:4.9.2
```

```
ARG port=8888
```

```
ENV NOTEBOOK_PORT $port
```

```
RUN conda config --set auto_update_conda false \  
&& conda config --set notify_outdated_conda false \  
&& conda config --prepend channels conda-forge \  
&& conda config --set channel_priority strict \  
&& conda install -Sy \  
    python==3.8.5 \  
    pip==20.2.4 \  
    notebook=6.1.4 \  
    ipywidgets=7.5.1 \  
    jupyter_contrib_nbextensions=0.5.1 \  
    tini=0.18.0 \  
    numpy=1.19.1 \  
    pandas=1.1.2 \  
    matplotlib=3.2.2 \  
    seaborn=0.11.0 \  
&& conda clean -afy
```

```
COPY jupyter_notebook_config.py /root/.jupyter/
```

```
WORKDIR "/mnt"
```

```
ENTRYPOINT ["tini", "-g", "--"]
```

```
CMD ["jupyter", "notebook"]
```



**Data analysis in Docker**

1. Write a *Dockerfile*

2. Build an *image*

3. Run a *container*

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**RUN**





- Executes commands in a new "*layer*" on top of the current image and "*commits*" the result

• Docker images work as build like git repositories

- Each instruction modifies the image by adding a new layer on top of it

- Docker stores images as a series of "diffs" between layers

- **ReLU creates a container from the current layer**



3. *Run a container*

# 2. Build an *image*



1. Write a Dockerfile



- Executes commands in a new *"layer"* on top of the

current image and "commits" the result

• Docker stores images as a series of "diffs" between

new layer on top of it

**layers**

• Each instruction modifies the image by adding a