

Notebook

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1 Fastpages Notebook Blog Post

A tutorial of fastpages for Jupyter notebooks.

- `toc: true`
- `badges: true`
- `comments: true`
- `categories: [jupyter]`
- `image: images/chart-preview.png`**cheese**

2 About

This notebook is a demonstration of some of capabilities of [fastpages](#) with notebooks.

With **fastpages** you can save your jupyter notebooks into the `_notebooks` folder at the root of your repository, and they will be automatically be converted to Jekyll compliant blog posts!

2.1 Front Matter

The first cell in your Jupyter Notebook or markdown blog post contains front matter. Front matter is metadata that can turn on/off options in your Notebook. It is formatted like this:

```
# "My Title"  
> "Awesome summary"
```

```
- toc: true- branch: master- badges: true  
- comments: true  
- author: Hamel Husain & Jeremy Howard  
- categories: [fastpages, jupyter]
```

- Setting `toc: true` will automatically generate a table of contents
- Setting `badges: true` will automatically include GitHub and Google Colab links to your notebook.
- Setting `comments: true` will enable commenting on your blog post, powered by [utterances](#).

The title and description need to be enclosed in double quotes only if they include special characters such as a colon. More details and options for front matter can be viewed on the [front matter section](#) of the README.

2.2 Markdown Shortcuts

A `#hide` comment at the top of any code cell will hide **both the input and output** of that cell in your blog post.

A `#hide_input` comment at the top of any code cell will **only hide the input** of that cell.

```
[1]: #hide_input
print('The comment #hide_input was used to hide the code that produced this.')
```

The comment `#hide_input` was used to hide the code that produced this.

put a `#collapse-hide` flag at the top of any cell if you want to **hide** that cell by default, but give the reader the option to show it:

```
[6]: #collapse-hide
import pandas as pd
import altair as alt
```

put a `#collapse-show` flag at the top of any cell if you want to **show** that cell by default, but give the reader the option to hide it:

```
[4]: #collapse-show
cars = 'https://vega.github.io/vega-datasets/data/cars.json'
movies = 'https://vega.github.io/vega-datasets/data/movies.json'
sp500 = 'https://vega.github.io/vega-datasets/data/sp500.csv'
stocks = 'https://vega.github.io/vega-datasets/data/stocks.csv'
flights = 'https://vega.github.io/vega-datasets/data/flights-5k.json'
```

2.3 Interactive Charts With Altair

Charts made with Altair remain interactive. Example charts taken from [this repo](#), specifically [this notebook](#).

```
[5]: # hide
df = pd.read_json(movies) # load movies data
genres = df['Major_Genre'].unique() # get unique field values
genres = list(filter(lambda d: d is not None, genres)) # filter out None values
genres.sort() # sort alphabetically
```

```
[4]: #hide
mpaa = ['G', 'PG', 'PG-13', 'R', 'NC-17', 'Not Rated']
```

2.3.1 Example 1: DropDown

```
[5]: # single-value selection over [Major_Genre, MPAA_Rating] pairs
# use specific hard-wired values as the initial selected values
selection = alt.selection_single(
    name='Select',
    fields=['Major_Genre', 'MPAA_Rating'],
    init={'Major_Genre': 'Drama', 'MPAA_Rating': 'R'},
    bind={'Major_Genre': alt.binding_select(options=genres), 'MPAA_Rating': alt.
    ↪binding_radio(options=mpaa)}
)

# scatter plot, modify opacity based on selection
alt.Chart(movies).mark_circle().add_selection(
    selection
).encode(
    x='Rotten_Tomatoes_Rating:Q',
    y='IMDB_Rating:Q',
    tooltip='Title:N',
    opacity=alt.condition(selection, alt.value(0.75), alt.value(0.05))
)
```

```
[5]: alt.Chart(...)
```

2.3.2 Example 2: Tooltips

```
[6]: alt.Chart(movies).mark_circle().add_selection(
    alt.selection_interval(bind='scales', encodings=['x']))
).encode(
    x='Rotten_Tomatoes_Rating:Q',
    y=alt.Y('IMDB_Rating:Q', axis=alt.Axis(minExtent=30)), # use min extent to
    ↪stabilize axis title placement
    tooltip=['Title:N', 'Release_Date:N', 'IMDB_Rating:Q',
    ↪'Rotten_Tomatoes_Rating:Q']
).properties(
    width=600,
    height=400
)
```

```
[6]: alt.Chart(...)
```

2.3.3 Example 3: More Tooltips

```
[7]: # select a point for which to provide details-on-demand
label = alt.selection_single(
    encodings=['x'], # limit selection to x-axis value
    on='mouseover', # select on mouseover events
    nearest=True,   # select data point nearest the cursor
    empty='none'    # empty selection includes no data points
)

# define our base line chart of stock prices
base = alt.Chart().mark_line().encode(
    alt.X('date:T'),
    alt.Y('price:Q', scale=alt.Scale(type='log')),
    alt.Color('symbol:N')
)

alt.layer(
    base, # base line chart

    # add a rule mark to serve as a guide line
    alt.Chart().mark_rule(color='#aaa').encode(
        x='date:T'
    ).transform_filter(label),

    # add circle marks for selected time points, hide unselected points
    base.mark_circle().encode(
        opacity=alt.condition(label, alt.value(1), alt.value(0))
    ).add_selection(label),

    # add white stroked text to provide a legible background for labels
    base.mark_text(aligned='left', dx=5, dy=-5, stroke='white', strokeWidth=2).
    ↪ encode(
        text='price:Q'
    ).transform_filter(label),

    # add text labels for stock prices
    base.mark_text(aligned='left', dx=5, dy=-5).encode(
        text='price:Q'
    ).transform_filter(label),

    data=stocks
).properties(
    width=700,
    height=400
)
```

```
[7]: alt.LayerChart(...)
```

2.4 Data Tables

You can display tables per the usual way in your blog:

```
[11]: movies = 'https://vega.github.io/vega-datasets/data/movies.json'
df = pd.read_json(movies)
# display table with pandas
df[['Title', 'Worldwide_Gross',
    'Production_Budget', 'Distributor', 'MPAA_Rating', 'IMDB_Rating',
    ↪ 'Rotten_Tomatoes_Rating']].head()
```

```
[11]:
```

	Title	Worldwide_Gross	Production_Budget	Distributor	\
0	The Land Girls	146083.0	8000000.0	Gramercy	
1	First Love, Last Rites	10876.0	300000.0	Strand	
2	I Married a Strange Person	203134.0	250000.0	Lionsgate	
3	Let's Talk About Sex	373615.0	300000.0	Fine Line	
4	Slam	1087521.0	1000000.0	Trimark	

	MPAA_Rating	IMDB_Rating	Rotten_Tomatoes_Rating
0	R	6.1	NaN
1	R	6.9	NaN
2	None	6.8	NaN
3	None	NaN	13.0
4	R	3.4	62.0

2.5 Images

2.5.1 Local Images

You can reference local images and they will be copied and rendered on your blog automatically. You can include these with the following markdown syntax:

```

```



2.5.2 Remote Images

Remote images can be included with the following markdown syntax:

2.5.3 Animated Gifs

Animated Gifs work, too!

``

3 Other Elements

3.1 GitHub Flavored Emojis

Typing `I give this post two :+1:!` will render this:

I give this post two :+1:!

3.2 Tweetcards

Typing `> twitter: https://twitter.com/jakevdp/status/1204765621767901185?s=20` will render this:

twitter: <https://twitter.com/jakevdp/status/1204765621767901185?s=20>

3.3 Youtube Videos

Typing > youtube: https://youtu.be/XfoYk_Z5AkI will render this:

youtube: https://youtu.be/XfoYk_Z5AkI

3.4 Boxes / Callouts

Typing > Warning: There will be no second warning! will render this:

Warning: There will be no second warning!

Typing > Important: Pay attention! It's important. will render this:

Important: Pay attention! It's important.

Typing > Tip: This is my tip. will render this:

Tip: This is my tip.

Typing > Note: Take note of this. will render this:

Note: Take note of this.

Typing > Note: A doc link to [an example website: [fast.ai](https://www.fast.ai/)] (<https://www.fast.ai/>) should also work fine. will render in the docs:

Note: A doc link to [an example website: fast.ai](https://www.fast.ai/) should also work fine.

3.5 Footnotes

You can have footnotes in notebooks, however the syntax is different compared to markdown documents. [This guide provides more detail about this syntax](#), which looks like this:

```
{% raw %}For example, here is a footnote {% fn 1 %}.
```

```
And another {% fn 2 %}
```

```
{{ 'This is the footnote.' | fndetail: 1 }}
```

```
{{ 'This is the other footnote. You can even have a [link](www.github.com)!' | fndetail: 2 }}{%
```

```
For example, here is a footnote {% fn 1 %}.
```

```
And another {% fn 2 %}
```

```
{{ 'This is the footnote.' | fndetail: 1 }} {{ 'This is the other footnote. You can even have a link!' | fndetail: 2 }}
```

4 Fastpages Notebook Blog Post 2

A tutorial of fastpages for Jupyter notebooks.

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- badges: true

- comments: true
- categories: [jupyter]
- image: images/chart-preview.png**cheese**