

Blogging for Fun...and Profit?

MINNEBAR13

Chris Moffitt
Practical Business Python
April 14, 2018



Welcome to Spring in Minnesota!

A little about me

- Studied Computer Science/EE
- Currently working at Boston Scientific
- This is my 5th MinneBar
- Blogging about python since Sept 2014

Contact me:

- chris@moffitts.net
- [@chris1610](https://twitter.com/@chris1610)
- pbpython.com



Colorado, Oct 2017

Audience for this talk

- My experience is with a technical blog
- Most of my experience should apply more broadly
- I am assuming you have a blog or are thinking of s
- Ask questions

Why am I presenting? Reason #1



**The first rule of MinneBar is
No Spectators, Only Participants**

Why am I presenting? Reason #2

Learn the secrets of my amazing real estate process!

Send \$45 dollars to me and I'll help you make millions!!!



Lots of people claim to make money blogging. In reality they all seem to be trying to sell you something.

Why am I presenting? Late breaking reason #3

MARCH 2018						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Cambridge Analytica and Facebook: The Scandal and the Fallout So Far

The New York Times



ProfHacker

Teaching, tech, and productivity.

March 27, 2018 by Jason B. Jones

Time for Blogs Again?

<https://www.chronicle.com/blogs/profhacker/time-for-blogs-again/>

Will there be a resurgence in self-hosted blogging?

Back to the Blog

■ Blogs, Internet, Social Media, Twitter ⏰ March 21, 2018

<https://dancohen.org/2018/03/21/back-to-the-blog/>



Dan Cohen

is a Vice Provost, Dean, and Professor at Northeastern University

BRIAN BARRETT GEAR 03.30.18 08:00 AM

IT'S TIME FOR AN RSS REVIVAL

<https://www.wired.com/story/rss-readers-feedly-inoreader-old-reader/>

What is Practical Business Python?

Mission: Provide a resource for people to learn how to solve real world problems by using python

Practical Business Python

Taking care of business, one python script at a time

/ Archives

Archives

2018

Mon 26 March 2018
Overview of Pandas Data Types

Tue 20 February 2018
Intro to pgevga - Plotting for Pandas using Vega-Lite

Mon 29 January 2018
Building a PDF Splitter Application

Tue 02 January 2018
Interactive Visualization of Australian Wine Ratings

2017

Mon 27 November 2017
Using Python's Pathlib Module

Mon 09 October 2017
Creating Interactive Visualizations with Plotly's Dash Framework

Mon 28 August 2017
Building a Bullet Graph in Python

Mon 31 July 2017
Pandas Grouper and Agg Functions Explained

Mon 03 July 2017
Introduction to Market Basket Analysis in Python

Tue 23 May 2017
How Accurately Can Prophet Project Website Traffic?

Tue 25 April 2017
Effectively Using Matplotlib

Tue 04 April 2017
Understanding the Transform Function in Pandas

Mon 06 March 2017
Forecasting Website Traffic Using Facebook's Prophet Library

Tue 21 February 2017
Populating MS Word Templates with Python

Mon 06 February 2017
Guide to Encoding Categorical Values in Python

Tue 17 January 2017
Data Science Challenge - Predicting Baseball Fanuel Points

2016

Mon 19 December 2016
Building a Financial Model with Pandas - Version 2

Mon 21 November 2016
Building a Financial Model with Pandas

Tue 06 September 2016
Creating Pandas DataFrames from Lists and Dictionaries

Mon 29 August 2016
Introduction to Data Visualization with Altair

Tue 23 August 2016
Lessons Learned from Analyze This! Challenge

Wed 15 June 2016
Excel 'Filter and Edit' - Demonstrated in Pandas

Mon 16 May 2016
Sharing Your Python Case Studies

Wed 06 April 2016
Interactive Data Analysis with Python and Excel

Tue 26 January 2016
Learn More About Pandas By Building and Using a Weighted Average Function

Wed 30 December 2015
Getting to the "Plateau of Productivity" with Python

Mon 07 December 2015
Creating Advanced Excel Workbooks with Python

Mon 26 October 2015
Pandas 0.17 Release and Other Notes

Mon 14 September 2015
Adding a Simple GUI to Your Pandas Script

Mon 17 August 2015
Creating Powerpoint Presentations with Python

Mon 13 July 2015
Best Practices for Managing Your Code Library

Thu 02 July 2015
Visualizing Google Forms Data with Seaborn

Tue 09 June 2015
Collecting Data with Google Forms and Pandas

Sun 17 May 2015
Notebooks Now on Github and Other Updates

Mon 04 May 2015
Tips for Customizing Your IPython and Pandas Display

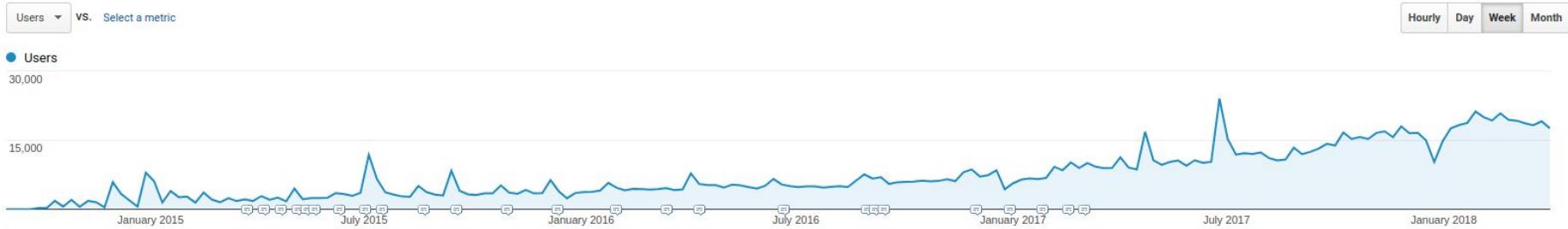
Wed 08 April 2015
Improving Pandas's Excel Output

- 53 Articles since 2014
- Try for about 1 article per month
- Takes about 5-10 hours to create article
- Each article includes in-depth content
- Several common themes:
 - Python visualization tools
 - MS Office tools and python
 - Pandas tips

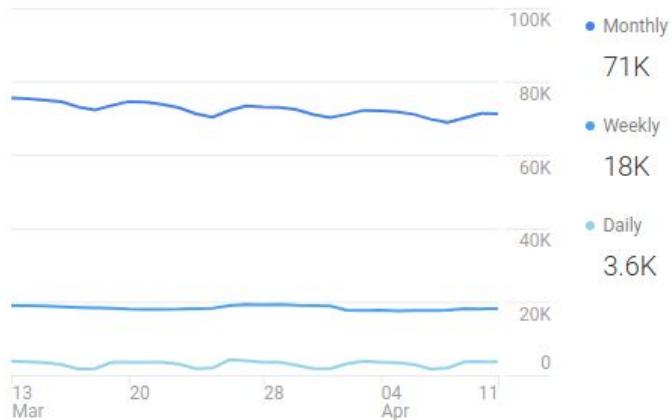
Escaping Excel Hell with Python & Pandas

MinneBar 11 - April 23, 2016
Chris Moffitt

Practical Business Python - By The Numbers



Active Users



Last 30 days

ACTIVE USERS REPORT >

Page	Pageviews	Page Value
/pandas-list-dict.html	22,765	\$0.00
/categorical-encoding.html	13,393	\$0.00
/pandas-pivot-table-explained.html	9,223	\$0.00
/	6,406	\$0.00
/visualization-tools-1.html	4,988	\$0.00
/pdf-reports.html	4,909	\$0.00
/market-basket-analysis.html	4,746	\$0.00
/simple-graphing-pandas.html	4,671	\$0.00
/excel-file-combine.html	4,526	\$0.00
/excel-pandas-comp.html	4,506	\$0.00

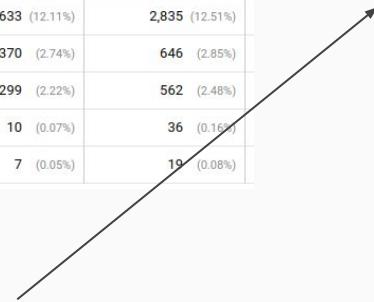
Last 30 days

PAGES REPORT >

Sources of Traffic

	Default Channel Grouping	Acquisition		
		Users ? ↓	New Users ?	Sessions ?
		17,604 % of Total: 100.00% (17,604)	13,486 % of Total: 100.04% (13,480)	22,655 % of Total: 100.00% (22,655)
1.	Organic Search	14,709 (83.12%)	11,167 (82.80%)	18,557 (81.91%)
2.	Direct	2,034 (11.49%)	1,633 (12.11%)	2,835 (12.51%)
3.	Social	505 (2.85%)	370 (2.74%)	646 (2.85%)
4.	Referral	422 (2.38%)	299 (2.22%)	562 (2.48%)
5.	(Other)	15 (0.08%)	10 (0.07%)	36 (0.16%)
6.	Email	11 (0.06%)	7 (0.05%)	19 (0.08%)

Traffic is driven by organic search



What are people searching for?

Search Query ?	Clicks ? ↓	Impressions ?
1. (other)	9,465 (62.44%)	175,496 (59.01%)
2. list to dataframe python	144 (0.95%)	372 (0.13%)
3. python list to dataframe	126 (0.83%)	188 (0.06%)
4. pandas create dataframe from list	95 (0.63%)	182 (0.06%)
5. pandas list to dataframe	95 (0.63%)	237 (0.08%)
6. pandas pivot table	91 (0.60%)	1,009 (0.34%)
7. pandas dataframe from list	84 (0.55%)	210 (0.07%)
8. list to pandas dataframe	54 (0.36%)	126 (0.04%)
9. dataframe from list	49 (0.32%)	116 (0.04%)
10. pandas pivot table example	48 (0.32%)	104 (0.03%)

Landing Page ?	Acquisition			
	Impressions ? ↓	Clicks ?	CTR ?	Average Position ?
	324,006 % of Total: 100.00% (324,006)	15,247 % of Total: 100.00% (15,247)	4.71% Avg for View: 4.71% (0.00%)	11 Avg for View: 11 (0.00%)
1. /pandas-list-dict.html	72,477 (22.37%)	3,967 (26.02%)	5.47%	7.4
2. /categorical-encoding.html	27,262 (8.41%)	1,933 (12.68%)	7.09%	9.0
3. /improve-pandas-excel-output.html	25,577 (7.89%)	701 (4.60%)	2.74%	10
4. /excel-pandas-comp.html	23,116 (7.13%)	521 (3.42%)	2.25%	12
5. /pandas-pivot-table-explained.html	22,261 (6.87%)	1,247 (8.18%)	5.60%	12
6. /simple-graphing-pandas.html	21,812 (6.73%)	619 (4.06%)	2.84%	11
7. /pandas-grouper-agg.html	10,952 (3.38%)	333 (2.18%)	3.04%	9.6
8. /visualization-tools-1.html	10,173 (3.14%)	481 (3.15%)	4.73%	15
9. /weighted-average.html	10,089 (3.11%)	224 (1.47%)	2.22%	9.1
10. /excel-file-combine.html	9,143 (2.82%)	581 (3.81%)	6.35%	18

Hosting Technology for Static Blog: Pelican Powered

Example blog article

```
pandas.dtypes.rst x
1 Overview of Pandas Data Types
2 #####
3
4 [dates]: 2018-3-26 7:25
5 [topic]: pandas
6 [slug]: pandas_dtypes
7 [image]: pandas_dtypes.png
8 [description]: Introduction to pandas data types and how to convert data columns to correct dtypes.
9 [status]: Published
10 When doing data analysis, it is important to make sure you are using the correct
11 data types; otherwise you may get unexpected results or errors. In the case of pandas,
12 it will correctly infer data types in many cases and you can move on with your analysis without
13 any further thought on the topic.
14
15 Despite how well pandas works, at some point in your data analysis processes, you
16 will likely need to explicitly convert data from one type to another. This article
17 will discuss the basic pandas data types (aka dtypes), how they map to
18 python and numpy data types and the options for converting from one pandas type to another.
19
20 Introduction
21
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28 will likely need to explicitly convert data from one type to another. This article
29 will discuss the basic pandas data types (aka dtypes), how they map to
30 python and numpy data types and the options for converting from one pandas type to another.
31
32 Pandas Data Types
33 -----
34 A data type is essentially an internal construct that a programming language
35 uses to understand how to store and manipulate data. For instance, a program
36 needs to understand that you can add two numbers together like 5 + 10 to get 15.
37 Or, if you have two strings such as "cat" and "hat" you could concatenate (add) them
38 together to get "cathat."
39
40 A possible confusing point about pandas data types is that there is some overlap
41 between pandas, python and numpy. This table summarizes the key points:
42
43 ... csv-table: Pandas code: dtype mapping
44 ... headers: "Type", "Python type", "NumPy type", "Usage"
45 ... widths: 10, 10, 10, 30
46 ... class: "table table-condensed"
47 ...
48 "object", "str", "string", "unicode", "Text"
49 "int64", "int", "int8", "int16", "int32", "int64", "uint8", "uint16", "uint32", "uint64", "Integer numbers"
50 "float64", "float", "float16", "float32", "float64", "Floating point numbers"
51 "bool", "bool_", "True/False values"
52 "datetime64", "NA", "Datetime[ns]", "Date and time values"
53 "timedelta[ns]", "NA", "NA", "Differences between two datetimes"
54 "category", "NA", "NA", "Finite list of text values"
55
```



Convert Text file to HTML

```
Terminal 100% 0:00:00.000000 100% user 0:00:00.000000
$ cd /tmp
$ ./pelican content -o output
$ ls -l output
total 12
drwxr-xr-x 2 root root 4096 Mar 26 07:25 _index.html
-rw-r--r-- 1 root root 1024 Mar 26 07:25 index.html
$
```

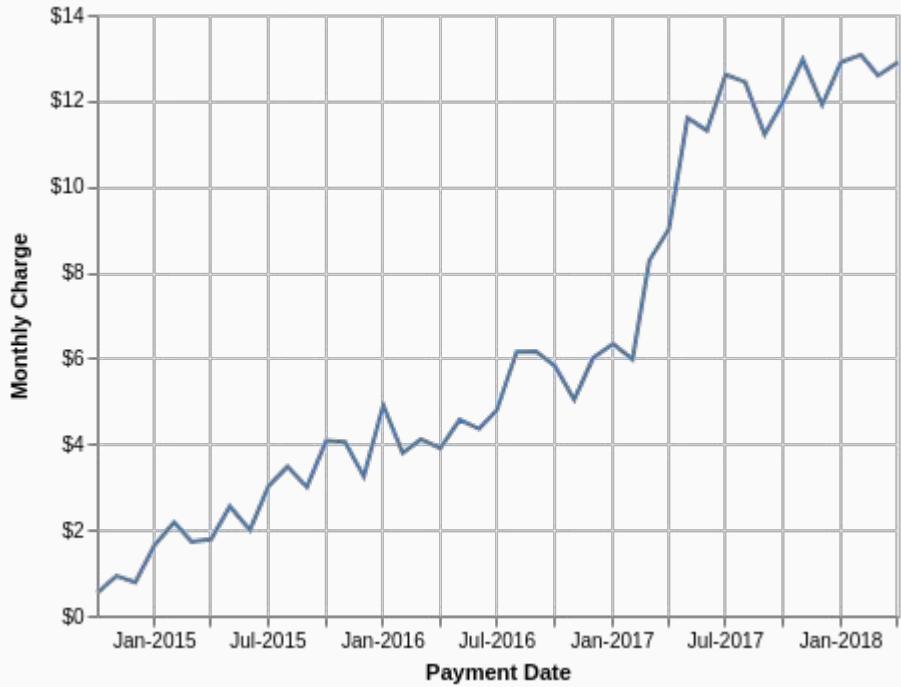
Upload HTML to AWS S3 instance

The screenshot shows a web browser window with the URL pbpython.com. The page title is "Practical Business Python". Below the title, a sub-headline reads "Taking care of business, one python script at a time". The main content area features a blog post titled "Overview of Pandas Data Types" by Chris Moffit. The post's date is listed as "Mon 26 March 2018". The content of the post is identical to the text shown in the terminal window above. On the right side of the browser window, there is a sidebar with various navigation links and filters, including "Social" (with links to GitHub, Twitter, and BitBucket), "Categories" (with links to "Pandas Pivot Table", "Explained", and "Common Excel Tasks"), and "Popular" (with links to "Demonstrated in Pandas").

Social
Github
Twitter
BitBucket
Reddit
LinkedIn
Categories
Pandas Pivot Table
Explained
Common Excel Tasks
Demonstrated in Pandas

How much does it cost?

Date:	March 2018	▼
	 Download CSV	 Print
Total	\$12.90	
▶ AWS Service Charges	\$12.90	
Payment Summary		
▶ Payment Summary		
Details		+ Expand All
AWS Service Charges	\$12.90	
▶ Data Transfer	\$11.71	
▶ Route 53	\$0.66	
▶ Simple Storage Service	\$0.53	



Prior 12 Months charges = \$148



No one likes ads on a site...



So, what options are available?

Amazon Affiliate Marketing

Home About Resources Archives

Practical Business Python

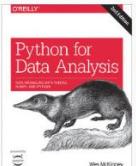
Taking care of business, one python script at a time

Recommended Resources

Intro

This page contains a collection of books and other content that I have found useful and hope you will as well. Any of the links which point to Amazon are affiliate links which mean this site will receive a small referral commission for any purchases through these links. The rest of the content is freely available and very useful.

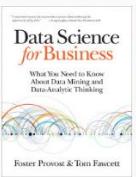
Books



Python for Data Analysis by Wes McKinney is the definitive reference for Pandas. In October 2017, Wes published the 2nd edition which includes many updates for the latest versions of pandas. In addition to the excellent pandas content, Wes includes introductory examples of statsmodels, patsy and scikit-learn. Anyone that does any level of work in Pandas would benefit from having this book on their bookshelf. All the material is available at the [pydata-book](#) github repository but I encourage you to purchase the book if you are able.



The Python Data Science Handbook by Jake VanderPlas is an excellent overview of the core elements of the python data science toolkit. This book is like 5 books in one with great coverage of Python, NumPy, pandas, matplotlib and machine learning with scikit-learn. I highly recommend this book to anyone that has basic python experience and is planning to work with any of the tools it covers. All of the content has been made generously available as notebooks so you can review the content before purchasing the book.



Data Science for Business by Foster Provost and Tom Fawcett is a very useful book for thinking about Data Science for solving business problems. The book does not cover any specific language and is light on math but very heavy on the fundamental concepts of Data Science and how to implement them in real life. This is a useful resource when it comes to figuring out how to apply technology in a complicated business setting.

- Started Amazon Affiliate Program in Mar 2017
- Recommend books related to python/data science
- Also include non-affiliate links
- Not a whole lot of promotion

Plot Rows						Secondary dimension	Sort Type:	Default
	Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances			
		242 % of Total: 0.81% (29,892)	142 % of Total: 0.53% (26,661)	00:02:18 Avg for View: 00:03:44 (-38.69%)	37 % of Total: 0.16% (22,655)			
	1. /pages/resources.html	242(100.00%)	142(100.00%)	00:02:18	37(100.00%)			

Typical week of traffic

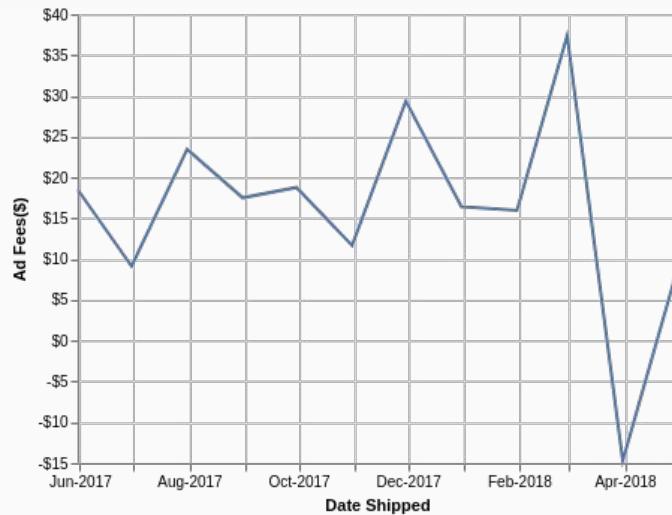
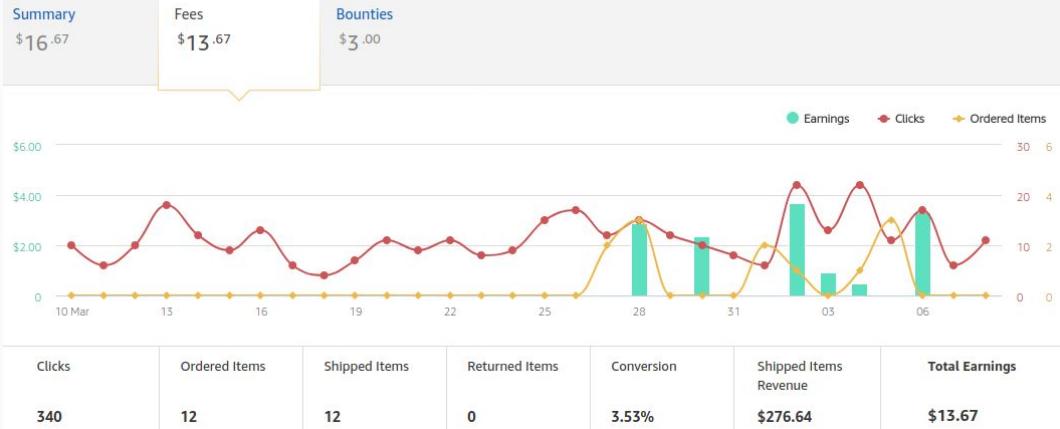
Earnings

Reports

Mar 10 2018 - Apr 08 2018 / Last 30 Days ▾ Tracking ID: All ▾

Fee Schedule | Payment History | Download Reports | Feedback | Help

Last Updated: Apr 08 2018 +0:00



\$192 in prior 12 months

Better off working here as a dishwasher (like my 16 yo)



The image shows a screenshot of the Cozzie's Tavern & Grill website. The header features a logo with a cartoon fox holding a beer mug, the text "TAVERN & GRILL COZZIE'S", and a red banner asking "How do you say that?? C-AH-ZZIE'S". It includes a menu of operating hours: Monday - Thursday: 11am - 11pm, Friday - Saturday: 11am - 1am, Sunday 11am - 10pm. A navigation bar with links to Home, Menu, Gallery, Leagues, Events, and Find Us is visible. Social media links for Facebook and Twitter are on the left. The main content area shows a photograph of the restaurant's outdoor patio at dusk, with people socializing under string lights and red umbrellas. A red circular overlay on the right contains the text: "Summer league registration starting April 2nd! Info under 'Leagues'". At the bottom, a large welcome message reads "WELCOME TO COZZIE'S TAVERN AND GRILL!".

TAVERN & GRILL
COZZIE'S

How do you say that??
C-AH-ZZIE'S

HOME MENU GALLERY LEAGUES EVENTS FIND US

Facebook Twitter

How do you say that??
C-AH-ZZIE'S

Hours:

Monday – Thursday: 11am – 11pm
Friday – Saturday: 11am – 1am
Sunday 11am – 10pm

Summer league registration starting April 2nd! Info under "Leagues"

WELCOME TO COZZIE'S TAVERN AND GRILL!

Let's look at other definitions of profit

Definition of PROFIT

- ① : a valuable return : **GAIN**
- ✖ : the excess of returns over expenditure in a transaction or series of transactions; *especially*
✖ : the excess of the selling price of goods over their cost
- ✖ : net income usually for a given period of time
- ✖ : the ratio of profit for a given year to the amount of capital invested or to the value of sales
- ✖ : the compensation accruing to entrepreneurs for the assumption of risk in business enterprise as distinguished from wages or rent

Why did I start blogging?

- Learn something new
 - Provide a creative outlet
 - Get re-engaged with the technical community
 - Help others
 - Build a portfolio
-
- Another income stream...



Still waiting for the fame and fortune

Why keep doing it?



firoozye @firoozye · Mar 26

I still recommend this excellent preso from [@chris1610](#) to friends and colleagues, at least 2yrs after it first came out. Escaping Excel Hell with #Python & Pandas



Kirk Borne @KirkDBorne

Escaping Excel Hell with #Python & Pandas
github.com/chris1610/pbpython... #DataScience by
@chris1610 pbpython.com



Gonzalo Gasca Meza @gogasca · Feb 21

@chris1610 Was reading your blog on categorical data processing, the best explanation I have seen in this topic. Thank you!



Gustavo Bragança @ga_braganca · Jan 17

Replying to @dbader.org

@chris1610 made an excellent job on this post. I always recommend it to my students.



afonso lenzi @afonsolenzi83 · Jan 15

Best Python blog ever!

Interactive Visualization of Australian Wine Ratings - Practical Business Python
pbpython.com/wine_visualiza... via @chris1610

The Lifecycle of a Plot

This tutorial aims to show the beginning, middle, and end of a single visualization using Matplotlib. We'll begin with some raw data and end by saving a figure of a customized visualization. Along the way we'll try to highlight some neat features and best-practices using Matplotlib.

Note

This tutorial is based off of [this excellent blog post](#) by Chris Moffit. It was transformed into this tutorial by Chris Holdgraf.



Rachel Thomas @math_rachel · Feb 25

Question: what are your favorite "intro to data science" courses/blogs/websites?



Mark K Shackelford
@mark_shack

[Follow](#)

Replying to @math_rachel

I really like [pbpython.com](#) by @chris1610.
The detailed examples have been a huge help in my learning. Thanks

8:43 AM · 25 Feb 2018



Greg Frazier @gnfrazier · 5 Sep 2017

Once again @chris1610 solved my problem before it became one. Reporting with pandas and formatted excel outputs.



Ben Dundee · 9 months ago

This post is gold, and where was that figure 5 years ago when I started playing with matplotlib? You hit the nail on the head -- matplotlib has a rough reputation because the API has a steep learning curve. I've generally exported data frames to excel and played there.



Great post!

19 ^ | v * Reply * Share >



Eron Lloyd · 6 months ago

Wow, thank you for such a great resource. I used to think matplotlib was outdated and being phased out when people were trying to replicate the ggplot library, but after starting to use it and experiencing its power, I love it. Bokeh, Seaborn, and the others are making important contributions, no doubt, but MPL is a real powerhouse!

All is not lost

Potential other opportunities for revenue

- Developing an online course with Datacamp
- Self-publishing content?

The image shows two side-by-side book landing pages from a digital bookstore.

Python 101 by Michael Driscoll:

- Reader Statistics:** 32,165 READERS
- Summary:** This book will help you learn how to program with Python 3 from beginning to end. Python 101 starts off with the fundamentals of Python and then moves on to Python's standard library. Once you're finished with those sections, you will learn about decorators, properties, debugging, profiling and much more!
- Buttons:** Read Free Sample, Table Of Contents
- Image:** An illustration of a mouse teacher standing at a chalkboard that says "PYTHON 101". Several mice are sitting at desks in front of her.
- Price:** Free! \$6.99
YOU PAY: \$6.99
AUTHOR EARN: \$5.79
- Call-to-Action:** Add Ebook to Cart, Add to Wish List

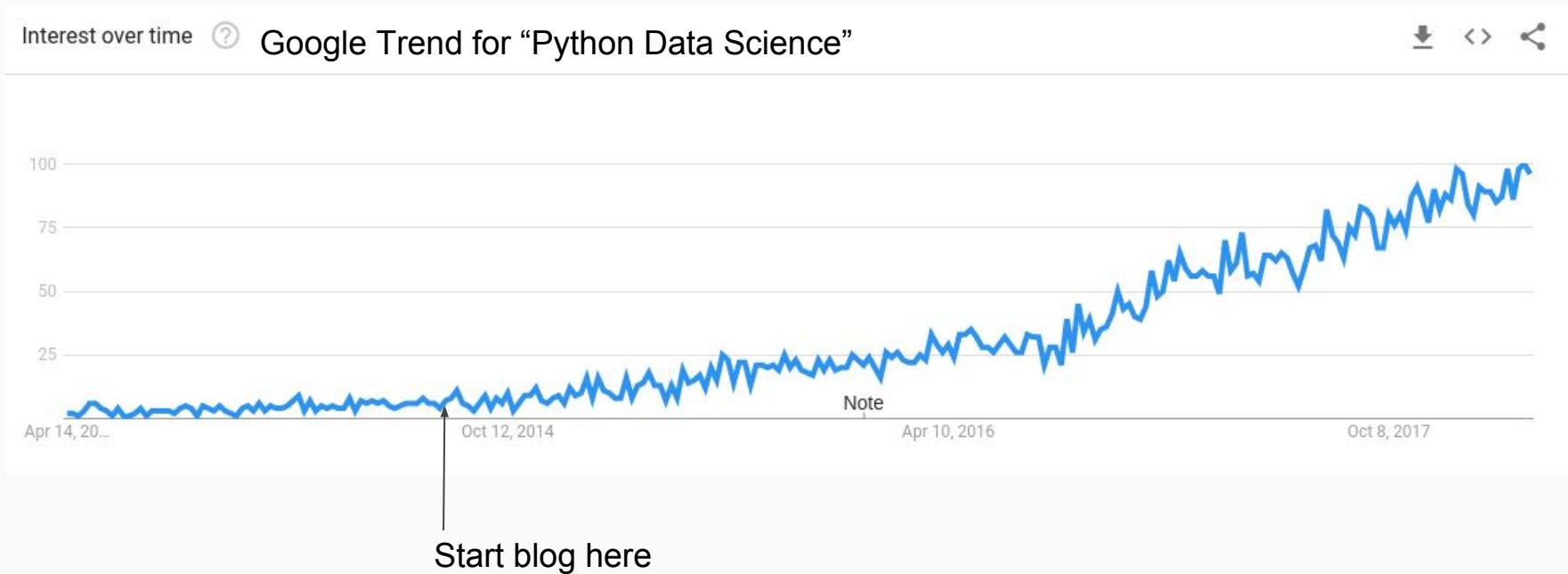
Effective Pandas by Tom Augspurger:

- Reader Statistics:** 2,163 READERS
- Summary:** A series on writing effective, idiomatic pandas.
- Buttons:** Read Free Sample, Table Of Contents
- Image:** A line graph showing data over time with several lines representing different pandas functions: DataFrame, Series, DataFrames, and DataSeries.
- Price:** Free! \$5.00
YOU PAY: \$5.00
AUTHOR EARN: \$4.00
- Call-to-Action:** Add Ebook to Cart, Add to Wish List

Still interested?

Here are some words of “wisdom”

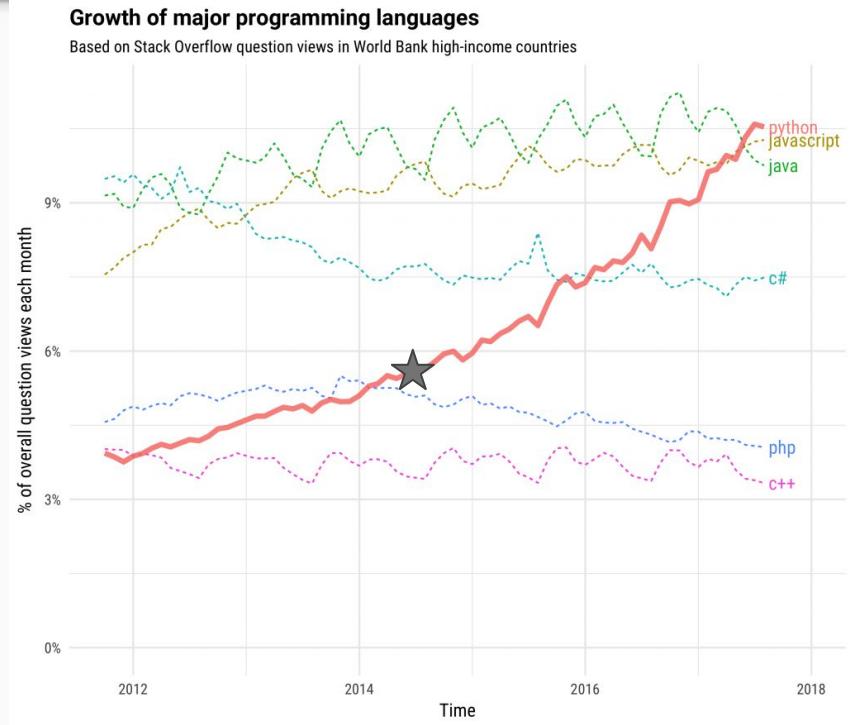
Picking a topic is easy.... Just predict the future



Follow a plan

But don't be afraid to change if you learn something new

- When I started PB Python, I did not know what “Data Science” was...
- But the Data Science tools are a great fit for solving many real world problems
- Nothing wrong with following the trends
 - If true to the original mission



Choosing an article topic....

post **write** **read**
The best gift to give is the one you would like to receive

- My mom

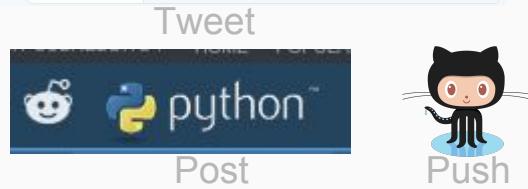
Promoting the site

The screenshot shows a web browser window for 'PB Practical Business'. The main content is an article titled 'Overview of Pandas Data Types' by Chris Moffitt. The article discusses the importance of using correct data types in pandas for accurate analysis. It includes a sidebar with social sharing links (Facebook, Google+, Twitter, LinkedIn) and categories like 'articles' and 'news'.

A screenshot of a tweet from Chris Moffitt (@chris1610) dated March 26. The tweet promotes a new article on pandas data types, explaining how to convert data to the correct pandas dtype. It includes a link to pbpython.com/pandas_dtypes... and hashtags #python and #pandas. Below the tweet is a preview of the article's content.

The screenshot shows the Planet Python homepage. It features the Python logo and the text 'python™'. Below it are links for 'RSS feed', 'Titles Only', and 'Powered by Planet!'. To the right, there is a section for 'Planet Python' with the last update time: 'Last update: April 10, 2018 09:46 PM'.

RSS



Publish the article

What I Do

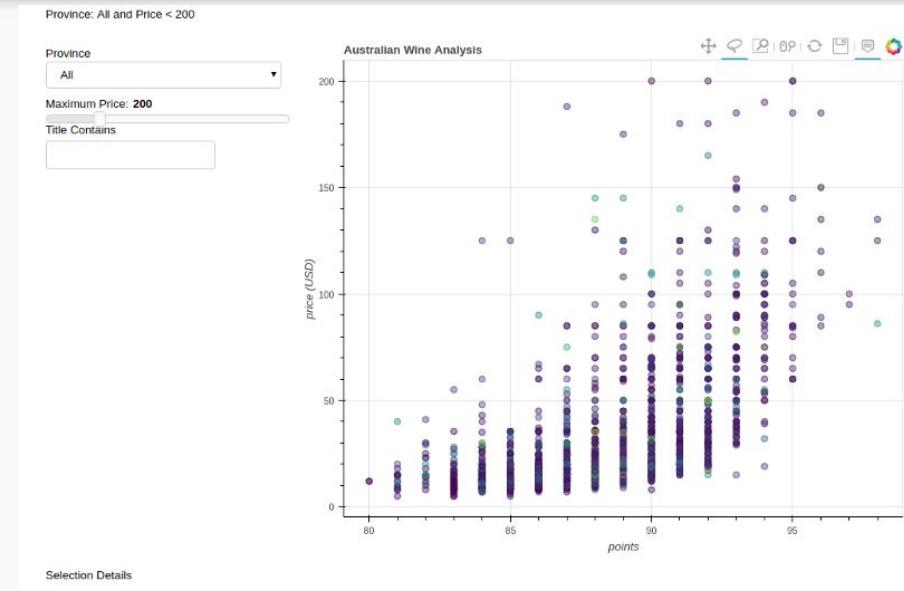


What others do



You must have an opportunity to use the topic

Almost every blog article can be traced to a problem I encountered in the real world



Looks a lot like an interactive price volume scatter plot...

Blogger has many hats....

- Designer
- SEO expert
- Content creator
- HTML/CSS/Javascript
- Analytics
- Version control
- Tech support
- Spam filter
- Site promoter



Blogging is an amazing learning opportunity



Richard Feynman
@ProfFeynman

Follow

▼

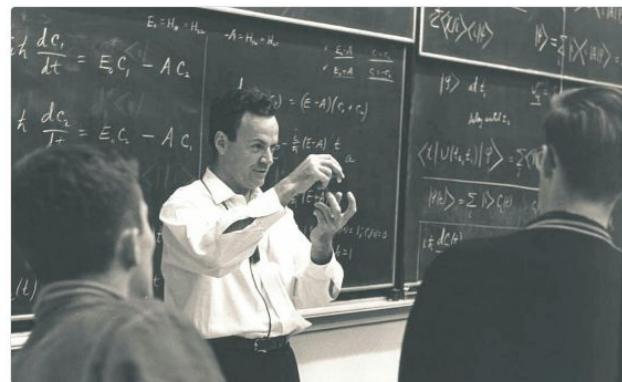
The FEYNMAN technique of learning:

STEP 1 - Pick and study a topic

STEP 2 - Explain the topic to someone, like a child, who is unfamiliar with the topic

STEP 3 - Identify any gaps in your understanding

STEP 4 - Review and Simplify



6:25 AM - 10 Apr 2018

STEP 1 - Pick and study a topic

STEP 1a - Use new concept to solve a problem

STEP 2 - Write a coherent blog post explaining it

STEP 3 - Receive feedback from the crowd

STEP 4 - Review and simplify

The fox knows many things, but the hedgehog knows one big thing.
—Archilochus

"I think every young person who regularly uses a computer should learn the following:

- how to choose a domain name
- how to buy a domain
- how to choose a good domain name provider
- how to choose a good website-hosting service
- how to find a good free text editor
- how to transfer files to and from a server
- how to write basic HTML, including links to CSS (Cascading Style Sheet) files
- how to find free CSS templates
- how to fiddle around in those templates to adjust them to your satisfaction
- how to do basic photograph editing
- how to cite your sources and link to the originals
- how to use social media to share what you've created on your own turf rather than create within a walled factory"

One could add considerably to this list, but **these, I believe, are the rudimentary skills that should be possessed by anyone who wants to be a responsible citizen of the open Web**—and not to be confined to living on the bounty of the digital headmasters.

Questions?

MINNEBAR13

Thank You!

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