



Herramientas básicas para ciencia de datos

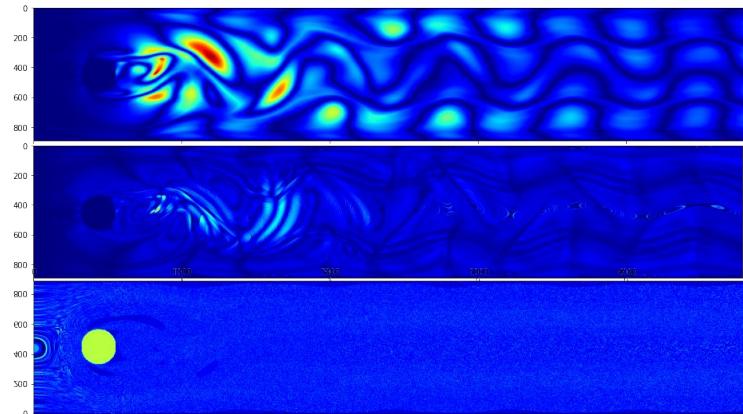
Guillermo Barrios del Valle
IER-UNAM
1 de Agosto, 2023



altamarmx.github.com

Calcula la diferencia m'axima/promedio entre original y Xap

```
In [25]: # Diferencia entre la matriz truncada a "r" y la original
r = 1
Xapprox = U[:, :, r] @ S[0:r, :, r] @ VT[:, :, r]
fig, ax = plt.subplots(figsize=(20, 4))
diferencia = np.abs(img_bw-Xapprox[:, 0].reshape(894, 4800))
img = ax.imshow(diferencia, cmap='jet')
fig.colorbar(img)
```





Herramientas básicas (y no tan básicas) para ciencia de datos

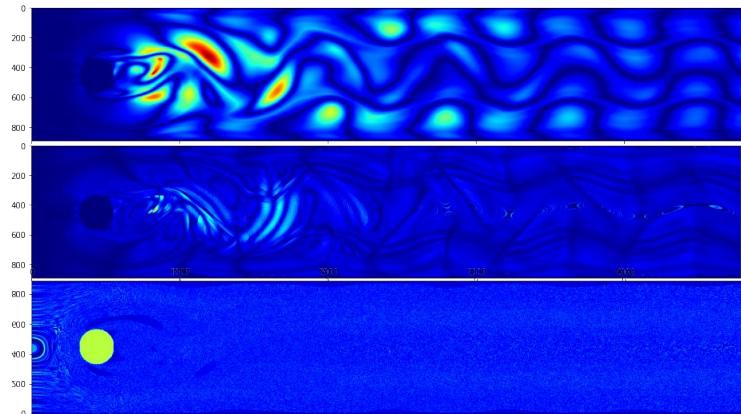
Guillermo Barrios del Valle
IER-UNAM
2 de Agosto, 2022



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Calcula la diferencia m'axima/promedio entre original y Xap

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Herramientas básicas (y no tan básicas) para ciencia de datos que sugiero aprendan

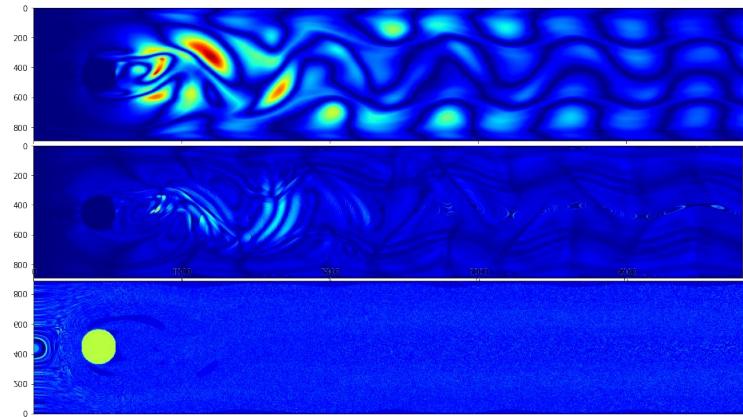
Guillermo Barrios del Valle
IER-UNAM
2 de Agosto, 2022



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Contenido

- 1. El paisaje de la ciencia de datos**
- 2. Comunes denominadores**
 - a. Ejercicio de análisis de datos**
 - b. Ejercicio de microcontrolador**
- 3. Herramientas básicas y no tan básicas**
- 4. Consejos que nadie pidió**



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Aclaraciones



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A screenshot of a Google search results page. The search query in the bar is "Antimanual de la lengua española, para un leng". Below the search bar, there are several filter buttons: PDF, Imágenes, Libros, Noticias, Vídeos, Shopping, Maps, Vuelos, and Financ. The search results section starts with a summary: "Cerca de 1,640 resultados (0.28 segundos)". The first result is a link from "unam.mx" to "centro de investigaciones y estudios de género - CIEG UNAM", with the URL "https://cieg.unam.mx > detalles-libro". A snippet of the page content is shown: "El Antimanual de la lengua española. Para un lenguaje no sexista, coeditado por el Centro de Investigaciones y Estudios de Género y la Dirección General de ...".



Aclaraciones

**No es un curso, intenta ser un taller, pero
tampoco es un taller**



El paisaje de la ciencia de datos en el IER

Matemáticas

Programación

Estadística

Procesamiento de datos

Visualización de datos

Machine learning

Desarrollo de software

Habilidades blandas



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Comunes denominadores



Hello, Quarto

Python R Julia
Observable

Combine Jupyter notebooks with flexible options to produce production quality output in a wide variety of formats. Author using traditional notebook UIs or with a plain text markdown representation of notebooks.

cell-options.ipynb

Palmer Penguins

```
author: Norah Jones
format:
  html:
    code-tools: true
    code-fold: true
```

```
[3]: #| echo: false
import pandas as pd
df = pd.read_csv("palmer-penguins.csv")
```

Exploring the Data

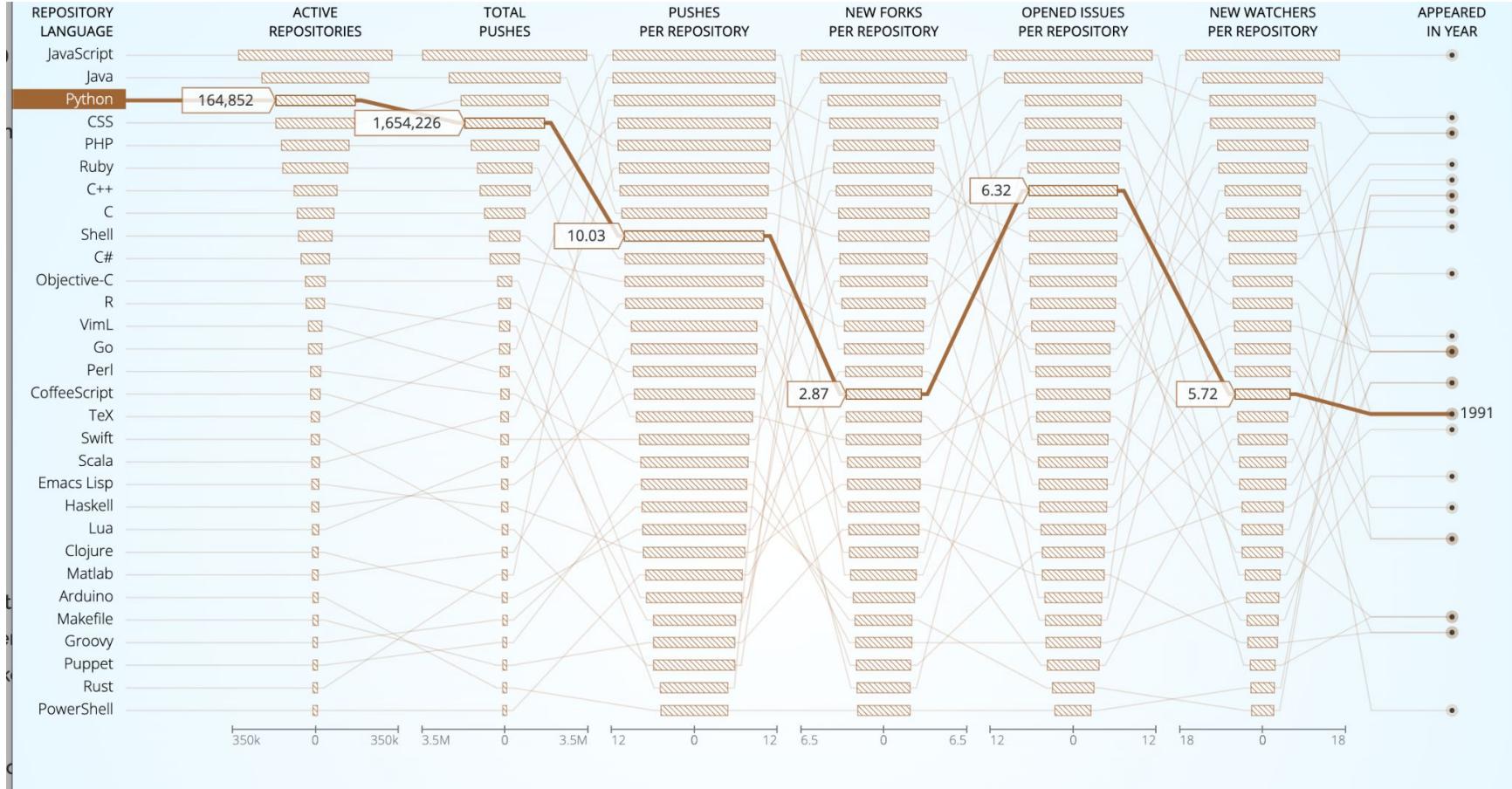
See @fig-bill-sizes for an exploration of bill sizes by species.

```
[6]: #| label: fig-bill-sizes
#| fig-cap: Bill Sizes by Species
import matplotlib.pyplot as plt
import seaborn as sns
g = sns.FacetGrid(df, hue="species", height=3, aspect=3.5/1.5)
g.map(plt.scatter, "bill_length_mm", "bill_depth_mm").add_legend()
```

```
[6]: <seaborn.axisgrid.FacetGrid at 0x2946720e0>
```

A scatter plot titled "Palmer Penguins" showing the relationship between bill length (mm) on the x-axis and bill depth (mm) on the y-axis. The data points are colored by species: Adelie (blue), Gentoo (orange), and Chinstrap (green). The plot is a facet grid where each facet represents a different species.

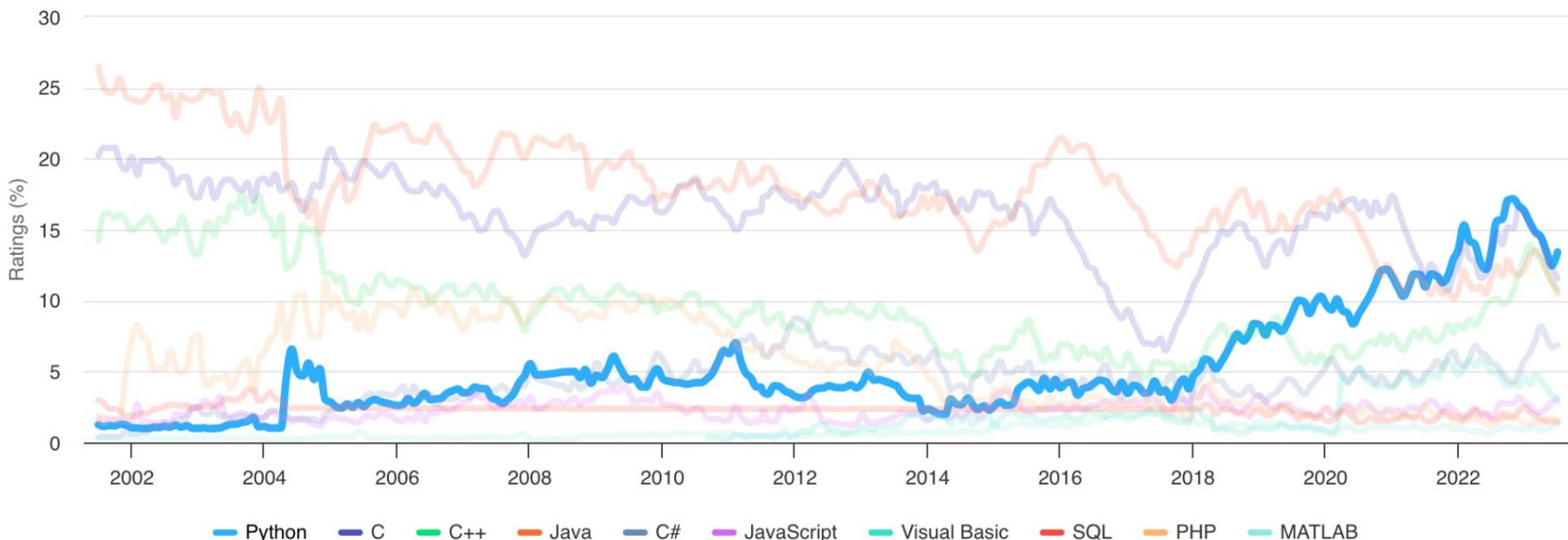
Comunes denominadores: Python



Comunes denominadores: Python

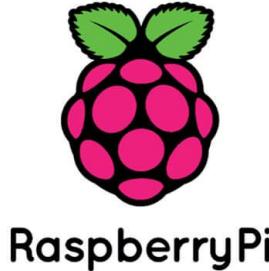
TIOBE Programming Community Index

Source: www.tiobe.com

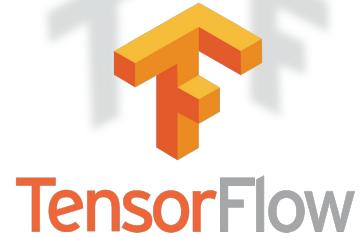


Python: Usos

- Ciencia de datos
- Microcontroladores
- Raspberry Pi
- Desarrollo web
- Desarrollo Linux
- Acceso base de datos
- Desarrollo de juegos
- Tableros de datos
- Desarrollo de interfaz



RaspberryPi

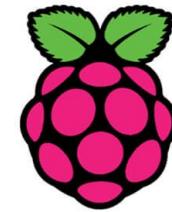


altamarmx.github.com

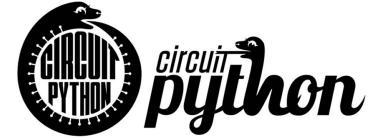


Python: Usos

- Ciencia de datos
- Microcontroladores
- Raspberry Pi
- Desarrollo web
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- Desarrollo de juegos
- Tableros de datos
- Desarrollo de interfaz
- **Jupyter Notebook**



RaspberryPi



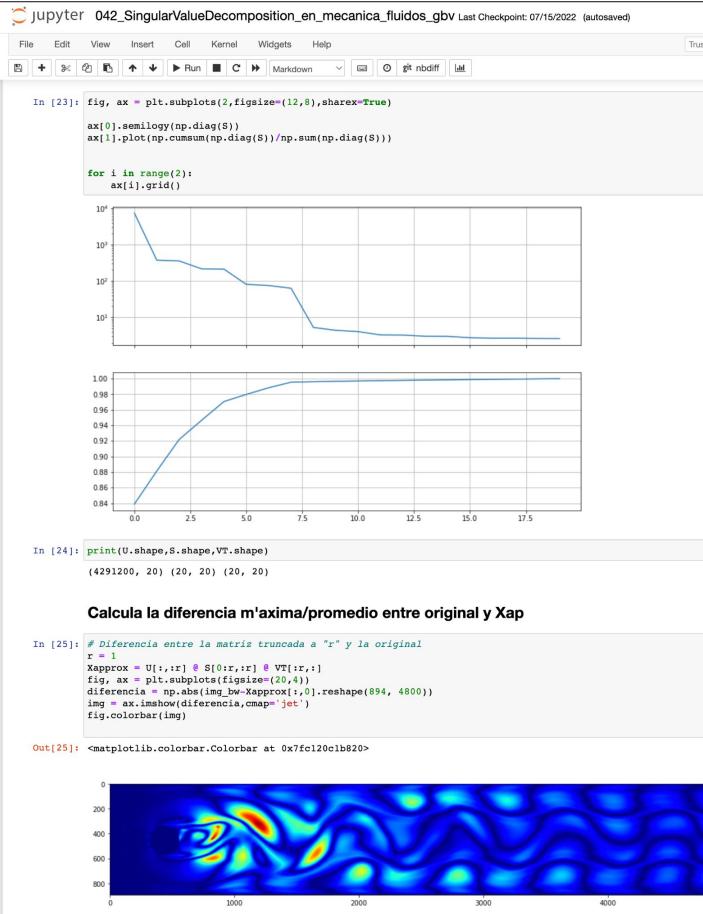
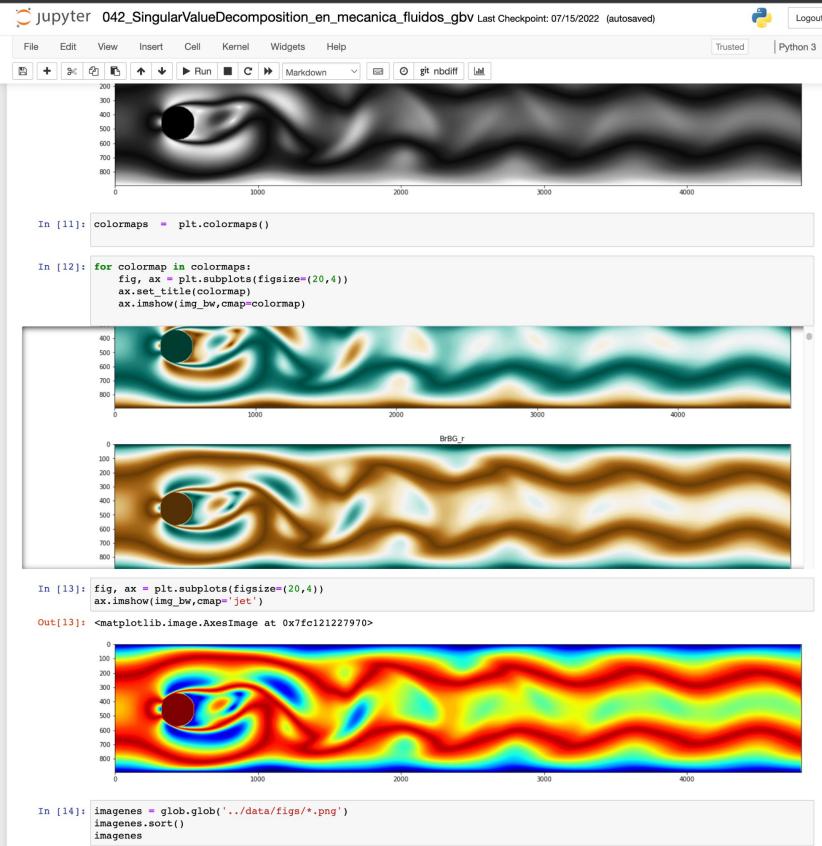
TensorFlow



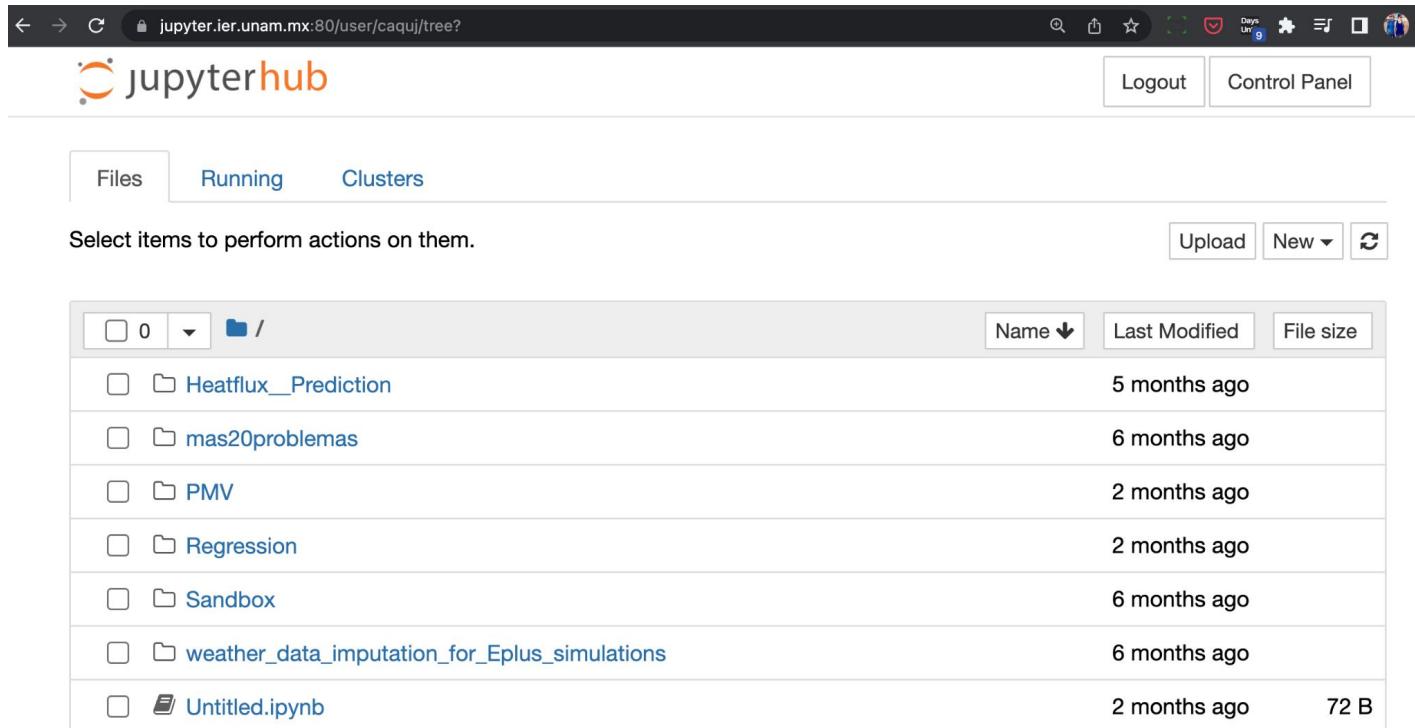
altamarmx.github.com



Python: Jupyter notebook



Python: Jupyter server



The screenshot shows a web-based Jupyter server interface. At the top, there's a header bar with a back/forward button, a search icon, a star icon, a refresh icon, and a "Days Left" counter (9). To the right of the header are "Logout" and "Control Panel" buttons. Below the header, there's a navigation bar with tabs: "Files" (selected), "Running", and "Clusters". A message "Select items to perform actions on them." is displayed above a file list. On the right side of the file list are "Upload", "New", and a refresh icon. The main area displays a list of files and folders:

	Name	Last Modified	File size
<input type="checkbox"/>	Heatflux__Prediction	5 months ago	
<input type="checkbox"/>	mas20problemas	6 months ago	
<input type="checkbox"/>	PMV	2 months ago	
<input type="checkbox"/>	Regression	2 months ago	
<input type="checkbox"/>	Sandbox	6 months ago	
<input type="checkbox"/>	weather_data_imputation_for_Eplus_simulations	6 months ago	
<input type="checkbox"/>	Untitled.ipynb	2 months ago	72 B



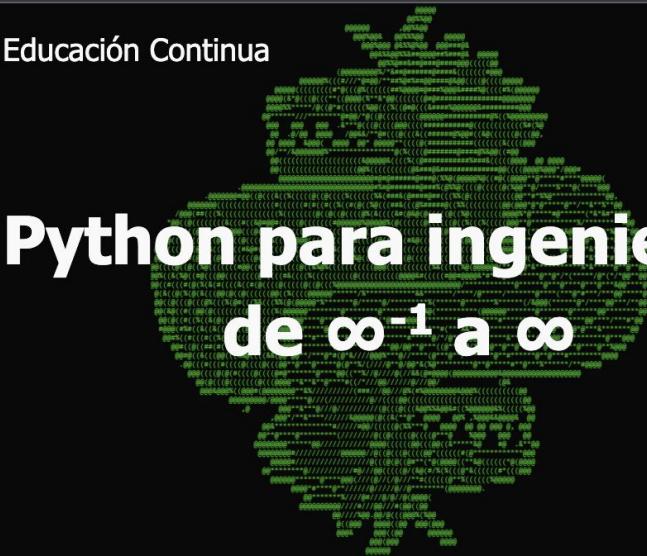
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- Es un curso asíncrono de Python dirigido a personas que manejan series de datos temporales, realizan operaciones matemáticas y visualizan estos datos.
- 6 módulos
- 20 horas de grabaciones
- 61 videos
- 9 cuestionarios para evaluar tu avance
- Un repositorio con la colección de datos
- Disponible en la plataforma [Renovando](#)

Talentos

≡ Educación Continua



Python para ingeniería, de ∞^{-1} a ∞

¿Quieres aprender a importar, visualizar y transformar datos usando Python, el lenguaje de programación más popular para el análisis de datos?



En este curso aprenderás a:

- 1.Instalar Python y Jupyter notebook e instalar y actualizar paquetes
- 2.Los tipos de variables y las diferentes formas de imprimir
- 3.La sintaxis de las herramientas de control y como sacar provecho de Python y Jupyter notebook
- 4.El manejo básico de matrices usando Numpy
- 5.El uso del paquete Pandas para el análisis de datos con ejemplos prácticos
- 6.Cómo visualizar tus datos en ingeniería usando paquetes especializados como matplotlib, joyplot, scipy, interact y seaborn

Comunes denominadores: Git

www.phdcomics.com

"FINAL".doc



FINAL.doc!



FINAL_rev.2.doc



FINAL_rev.2.doc



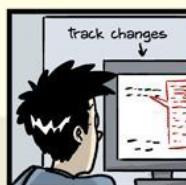
FINAL_rev.6.COMMENTS.doc



FINAL_rev.8.comments5.CORRECTIONS.doc



FINAL_rev.6.COMMENTS.doc



FINAL_rev.18.comments7.corrections9.MORE.30.doc FINAL_rev.22.comments49.corrections.10.#@\$%WHYDID
ICOMETOGRAD SCHOOL????.doc

JORGE CHAM © 2012



FINAL_rev.22.comments49.corrections.10.#@\$%WHYDID
ICOMETOGRAD SCHOOL????.doc



↑

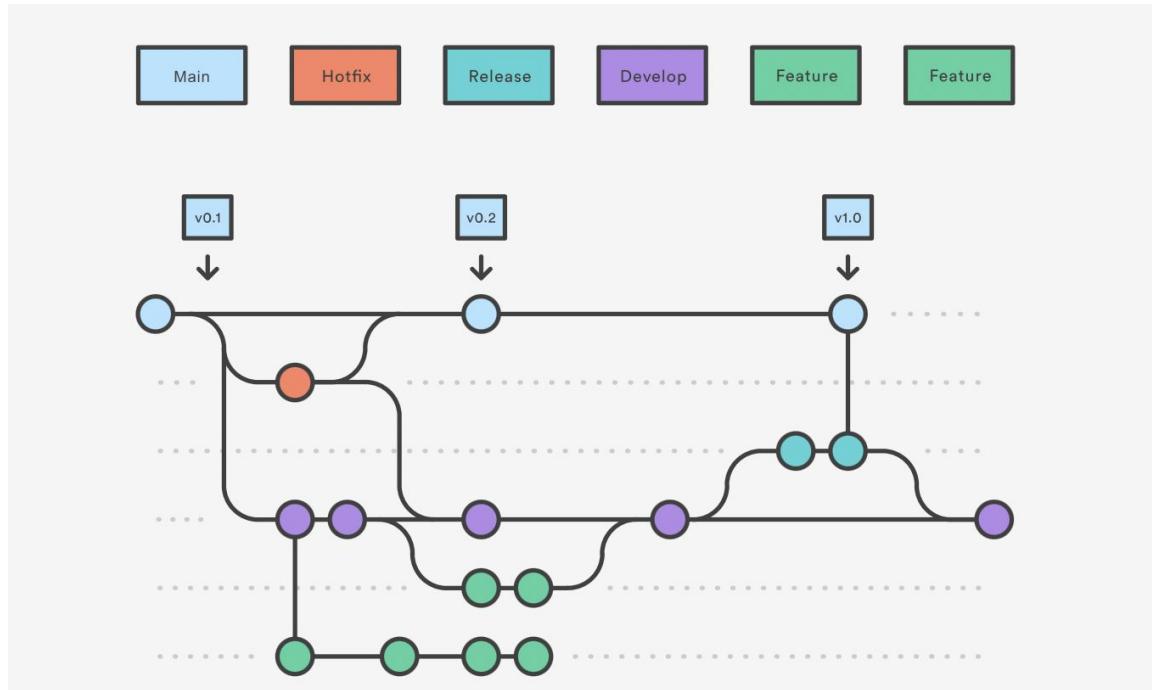
WWW.PHDCOMICS.COM



altamarmx.github.com

Comunes denominadores: Git

¿Qué es un sistema de control de versiones ?



Comunes denominadores: Git



EnergyPlus

EnergyPlus™ is a whole building energy simulation program that engineers, architects, and researchers use to model both energy consumption—for heating, cooling, ventilation, lighting and plug and process loads—and water use in buildings. Some of the notable features and capabilities of EnergyPlus include:

- **Integrated, simultaneous solution** of thermal zone conditions and HVAC system response that does not assume that the HVAC system can meet zone loads and can simulate un-conditioned and under-conditioned spaces.
- **Heat balance-based solution** of radiant and convective effects that produce surface temperatures thermal comfort and condensation calculations.
- **Sub-hourly, user-definable time steps** for interaction between thermal zones and the environment; with automatically varied time steps for interactions between thermal zones and HVAC systems. These allow EnergyPlus to model systems with fast dynamics while also trading off simulation speed for precision.
- **Combined heat and mass transfer** model that accounts for air movement between zones.
- **Advanced fenestration models** including controllable window blinds, electrochromic glazings, and layer-by-layer heat balances that calculate solar energy absorbed by window panes.



EnergyPlus 23.1.0 is now available.

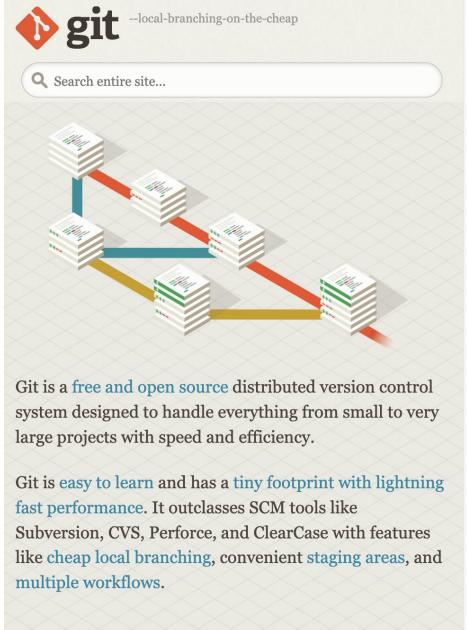
Download EnergyPlus



[altamarmx.github.com](#)

A screenshot of the EnergyPlus GitHub repository page. The top header shows the NREL / EnergyPlus repository with 832 issues, 45 pull requests, and 905 stars. Below the header, there are tabs for Code, Issues, Pull requests, Discussions, Actions, and About. The Code tab is selected, showing a list of recent commits. A sidebar on the right provides information about the repository, including links to energyplus.net, Readme, View license, Activity, 905 stars, 100 watching, 347 forks, and a Report repository button. The Releases section shows EnergyPlus 23.1.0 as the latest release, made on March 28. The Contributors section shows 79 contributors, with a link to 68 more contributors.

Comunes denominadores: Git



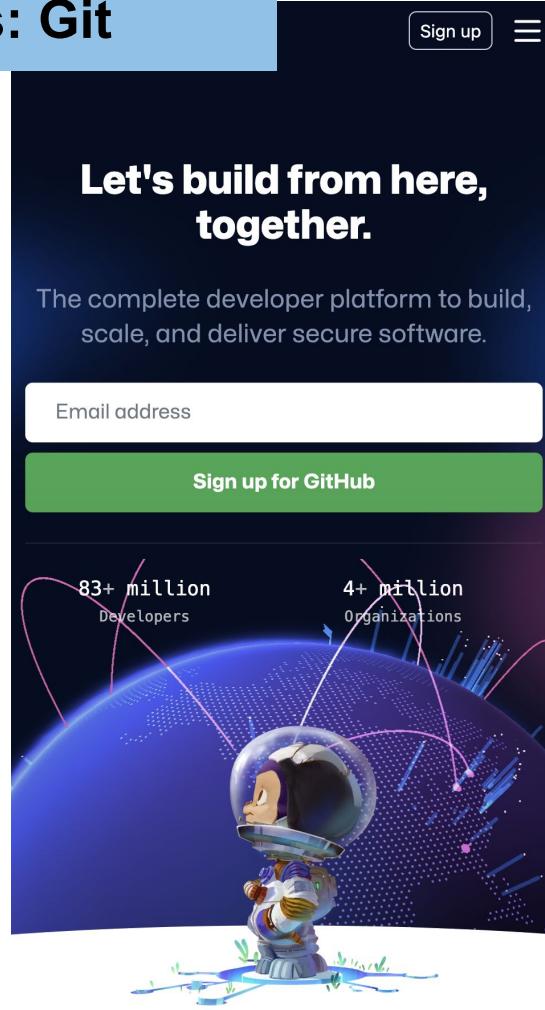
The screenshot shows the GitHub homepage with a light blue header. The GitHub logo is at the top left, followed by the tagline "local-branching-on-the-cheap". A search bar with the placeholder "Search entire site..." is below it. The main visual is a 3D wireframe diagram of a network of interconnected servers or databases. Below the diagram, there's a brief introduction to Git:

Git is a [free and open source](#) distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

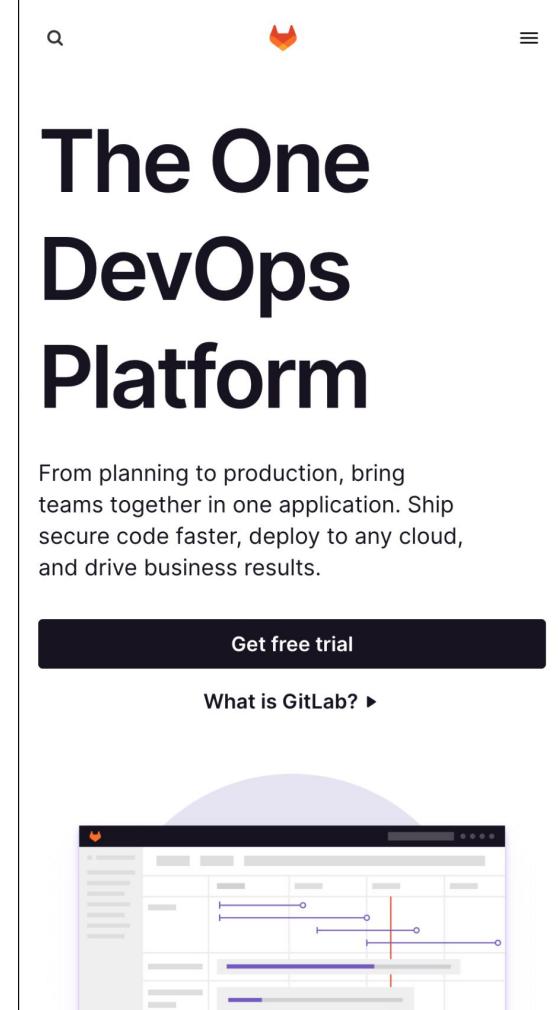
Git is [easy to learn](#) and has a [tiny footprint with lightning fast performance](#). It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like [cheap local branching](#), [convenient staging areas](#), and [multiple workflows](#).



altamarmx.github.com



The screenshot shows the GitHub sign-up page with a dark blue background. The headline reads "Let's build from here, together." Below it is the subtext: "The complete developer platform to build, scale, and deliver secure software." There is a white input field for "Email address" and a green button labeled "Sign up for GitHub". At the bottom is a stylized illustration of a small robot or character standing on a globe, with text indicating "83+ million Developers" and "4+ million Organizations" connected to the globe by pink lines.



The screenshot shows the GitLab homepage with a white background. The headline reads "The One DevOps Platform" in large, bold, black letters. Below it is a subtext: "From planning to production, bring teams together in one application. Ship secure code faster, deploy to any cloud, and drive business results." There is a black button labeled "Get free trial" and a link "What is GitLab? ▶". At the bottom is a stylized illustration of a timeline or commit history.

Comunes denominadores: Git

Dashboard



AltamarMx

Repositories

Find a repository...

- AltamarMx/altamarmx.github.io
- EneRDataMx/guiones
- AltamarMx/tesis_orlando
- AltamarMx/gasm
- AltamarMx/tiktok_python
- AltamarMx/ehls_process
- AltamarMx/mooc1
- AltamarMx/ContandoHistoriasDatos_taller
- EneRDataMx/edtools
- AltamarMx/co2
- AltamarMx/crash_Python_guiones
- AltamarMx/AFN_peru
- AltamarMx/predict_pressure
- AltamarMx/iertools
- AltamarMx/afn_analisis
- AltamarMx/evaporativo_papit
- AltamarMx/webinar_python
- AltamarMx/limpieza_datos
- EneRDataMx/enerdata_repositorio

AltamarMx

Overview Repositories 122 Projects Packages Stars 18



Guillermo Barrios del Valle
AltamarMx
Researcher at Renewable Energies
Instituto UNAM, data and technology
enthusiastic

Edit profile

44 followers - 24 following

- UNAM
- Temixco, Morelos, Mexico
- gbv@ier.unam.mx
- <https://altamarmx.github.io/>
- @Altamar

Achievements



Beta Send feedback

Highlights

PRO

Popular repositories

- mas20problemas (Public)
- Jupyter Notebook ⭐ 6 1
- ContandoHistoriasDatos_taller (Public)
- Repositorio para hacer prácticas en el taller de Aprende a contar historias con datos
- Jupyter Notebook ⭐ 3
- crash_course_Python (Public)
- Crash course de Python y Jupyter Notebook impartido en el IER-UNAM
- Jupyter Notebook ⭐ 2 1
- riilia2020_mejorconjunto (Public)
- Taller RIILIA 2020: Comparación de datos experimentales y simulados, seleccionando al mejor conjunto
- Jupyter Notebook ⭐ 4 1
- EnergyPlusData (Public)
- Methods to manipulate csv files from EnergyPlus simulations
- Jupyter Notebook ⭐ 2
- iertools (Public)
- Tools used by the Energy in Buildings group
- Jupyter Notebook ⭐ 2

740 contributions in the last year

Contribution settings ▾



Learn how we count contributions

Less More

2023

2022

2021

2020

2019

2018

2017

2016

Activity overview

Contributed to

- AltamarMx/altamarmx.github.io
- EneRDataMx/guiones
- AltamarMx/tiktok_python

and 58 other repositories

Code review

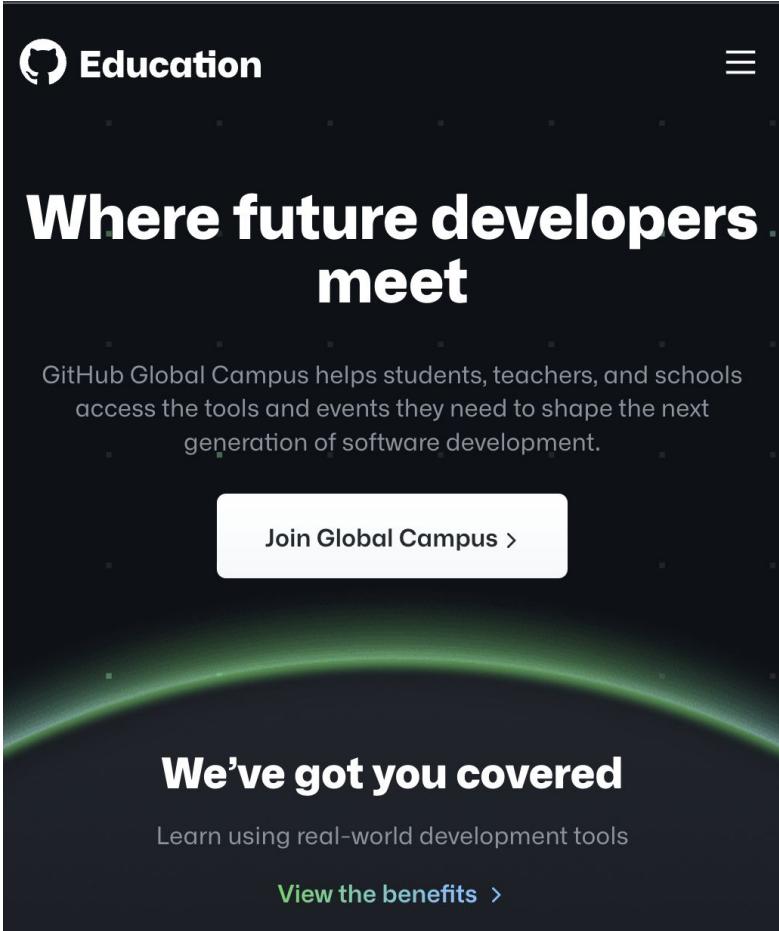
100% Commits

Pull requests

Issues

Contribution activity

Comunes denominadores: Github



The image shows the GitHub Education landing page. At the top left is the GitHub logo followed by the word "Education". On the right is a menu icon (three horizontal lines). The main title "Where future developers meet" is displayed in large white font. Below it, a subtitle explains: "GitHub Global Campus helps students, teachers, and schools access the tools and events they need to shape the next generation of software development." A prominent button labeled "Join Global Campus >" is centered. At the bottom, the text "We've got you covered" is followed by "Learn using real-world development tools" and a green button labeled "View the benefits >".



This card highlights the "Student Developer Pack". It features a small icon of a stack of books or boxes. The title "Student Developer Pack" is in bold, followed by the subtitle "Get the best developer tools". The main text explains: "There's no substitute for hands-on experience, but for most students, real-world tools can be cost prohibitive. That's why we created the Pack with some of our partners and friends." A call-to-action button at the bottom reads "Get the Student Pack >".



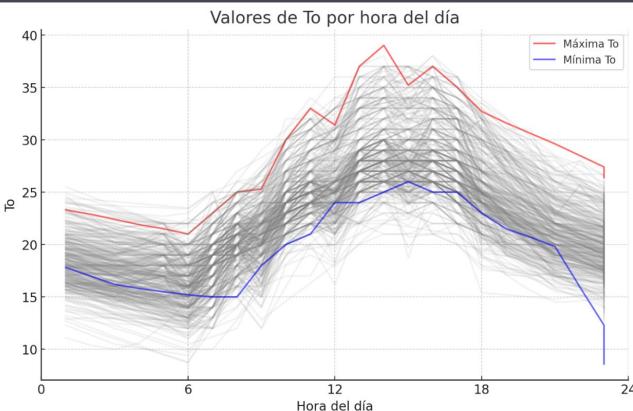
This card introduces the "GitHub Campus Expert" program. It includes a small icon of a person with a flag. The title "GitHub Campus Expert" is bold, and the subtitle "Grow your leadership skills" follows. The main text describes: "Build a tech community at your school with training and support from GitHub. Campus Experts learn public speaking, technical writing, community leadership, and software development skills that will help you improve your campus." A call-to-action button at the bottom reads "Become a Campus Expert >".

Comunes denominadores: AI (LLM)

< 2 / 2 > 🤖 y un alpha y que el grid en x sea cada 6 horas

< 2 / 2 > 🤖 Entiendo. Para tener una cuadrícula en el eje x cada 6 horas, podemos ajustar los límites y las marcas del eje x. Para hacer que las líneas sean semi-transparentes, podemos establecer un valor alpha. Vamos a hacer estos ajustes.

Finished working Show work ▾



Valores de To por hora del día

Máxima To

Mínima To

10 15 20 25 30 35 40

0 6 12 18 24

Hora del día

En este gráfico, todas las líneas son semi-transparentes (las líneas grises tienen un valor alfa de 0.1, mientras que las líneas roja y azul tienen un valor alfa de 0.6). Además, he ajustado la cuadrícula en el eje x para que haya marcas cada 6 horas.

Este gráfico debería ayudarte a visualizar cómo 'To' cambia a lo largo del día en general, así como en los días con temperaturas extremas, con una cuadrícula más clara en el eje x.

Stop generating

Comunes denominadores: AI (LLM)

← Thread



Dr. Saiph Savage
@saiphcita

...

I recently gave a mini-course at UNAM on Prompt Engineering and leveraging ChatGPT for Scientific Work! 🚀💡

Curious to learn more?

Check out the:

🆓 free video of the mini-course here: youtube.com/watch?v=sNrsns...

🆓 slides from the mini-course : 1drv.ms/p/s!AjS5UB68rM...

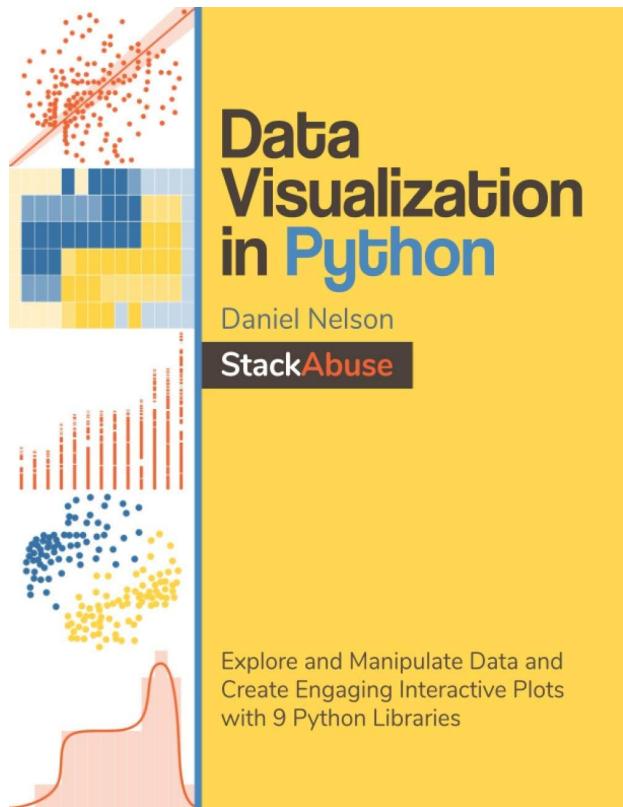
#UNAM



6:23 PM · Jun 19, 2023 · 25.9K Views

60 Retweets 4 Quotes 230 Likes 78 Bookmarks

Python: Visualización de datos



altamarmx.github.com



Altamar

Comunes denominadores: Github

Persona
voluntaria...

The screenshot shows a GitHub repository page for 'AltamarMx/tools_datascience'. The 'Code' tab is selected. On the right, there's an 'About' section with the message 'No description, website, or topics provided.' Below it are sections for 'Readme', 'Apache-2.0 license', 'Activity', '0 stars', '1 watching', and '0 forks'. The 'Releases' and 'Packages' sections are also visible. A tooltip 'Copied!' appears over the clipboard icon next to the HTTPS URL.

github.com/AltamarMx/tools_datascience

Code Issues Pull requests Actions Projects Wiki Security

tools_datascience Public

Pin Unwatch 1 Fork 0 Star 0

main Go to file Add file Code

Branches Local Codespaces

Clone

HTTPS SSH GitHub CLI

Copied!

https://github.com/AltamarMx/tools_datascience

README

Open with GitHub Desktop

Open with Visual Studio

Download ZIP

About

No description, website, or topics provided.

Readme

Apache-2.0 license

Activity

0 stars

1 watching

0 forks

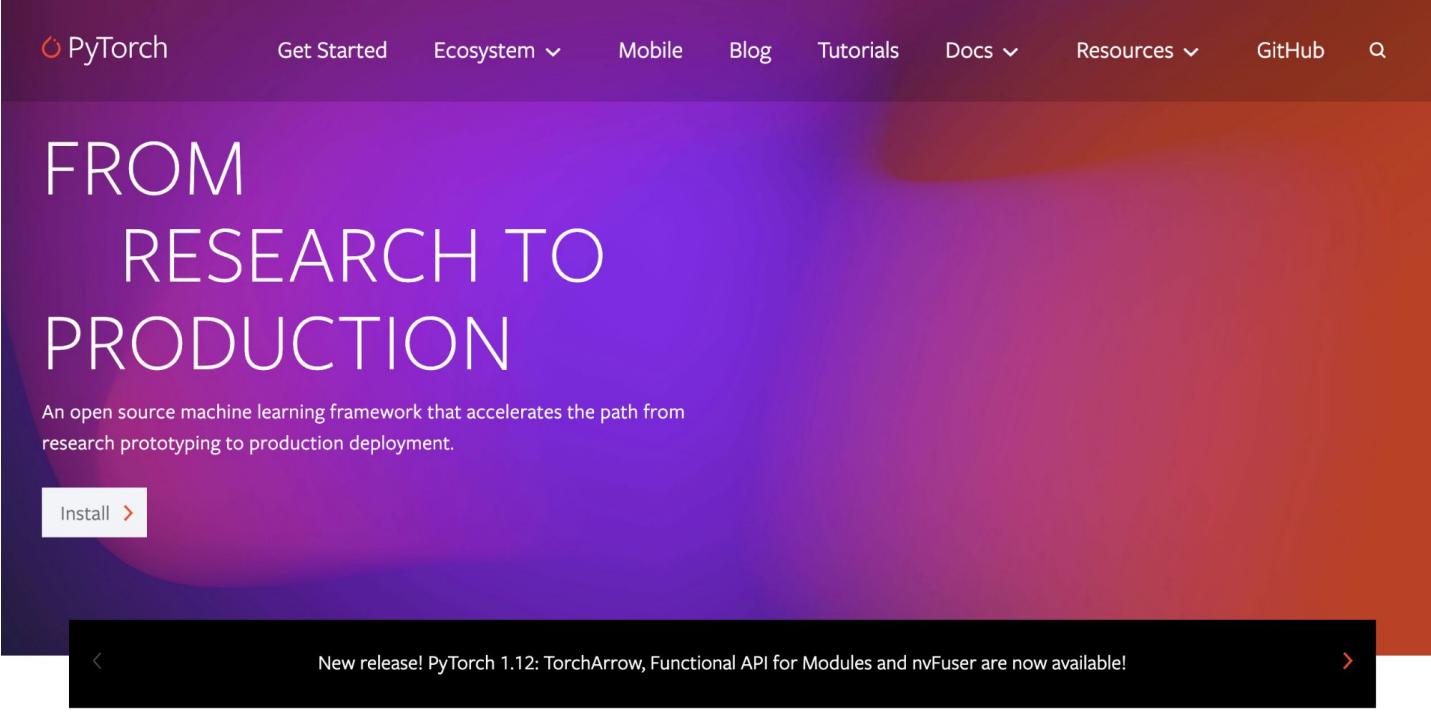
Releases

No releases published

Create a new release

Packages

Python: Inteligencia artificial



The image shows the PyTorch homepage. At the top, there is a navigation bar with links: PyTorch (highlighted with an orange icon), Get Started, Ecosystem (with a dropdown arrow), Mobile, Blog, Tutorials, Docs (with a dropdown arrow), Resources (with a dropdown arrow), GitHub, and a search icon. Below the navigation bar is a large, stylized text section with a purple-to-orange gradient background. The text reads "FROM RESEARCH TO PRODUCTION" in large, white, sans-serif capital letters. Underneath this, a smaller text block says "An open source machine learning framework that accelerates the path from research prototyping to production deployment." At the bottom left of this section is a button labeled "Install >". At the very bottom of the page is a black footer bar containing the text "New release! PyTorch 1.12: TorchArrow, Functional API for Modules and nvFuser are now available!" flanked by left and right arrows.

PyTorch

Get Started

Ecosystem

Mobile

Blog

Tutorials

Docs

Resources

Github

Q

FROM
RESEARCH TO
PRODUCTION

An open source machine learning framework that accelerates the path from research prototyping to production deployment.

Install >

New release! PyTorch 1.12: TorchArrow, Functional API for Modules and nvFuser are now available!



altamarmx.github.com



Altamar

Comunes denominadores: Python y la IA

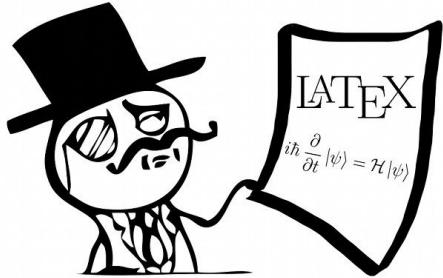
The screenshot shows the official TensorFlow website. At the top, there's a navigation bar with links for 'Instalación', 'Aprende', 'API', 'Más', 'Buscar' (Search), 'Language', 'GitHub', and 'Acceder'. The main heading on the left is 'Plataforma de extremo a extremo de código abierto para el aprendizaje automático'. Below it, a section for 'TensorFlow' is highlighted, with tabs for 'Para JavaScript', 'For Mobile & Edge', and 'Para producción'. A descriptive paragraph explains that TensorFlow is the main open-source library for developing and training AI models, mentioning Colab integration. A prominent orange button says 'Comienza a usar TensorFlow'. To the right, there's a large graphic illustrating the TensorFlow ecosystem with various devices (laptop, smartphone, car, server) connected by orange lines to a central hub, symbolizing data flow and machine learning components.



[altamarmx.github.com](https://github.com/altamarmx)



Comunes denominadores: Publish & Document



overleaf.com/project/6222b1f966636c1940c046f4

Menu Upgrade Evaporative_cooling Review Share Submit History Layout Chat

Code Editor Visual Editor Recompile 11

```
T_{wb} = T_{wb,in} = T_{wb,out},  
369 \end{equation}  
370 where $h_{a,out}$ and $T_{wb,out}$ are the specific  
enthalpy and wet bulb temperature of the outlet air.  
371  
372 Using the same relationship as in  
\cref{eq:spec_enthalpy_in} but for the specific  
enthalpy of the outlet air, substituting  
\cref{eq:isenthalpic} and solving for the dry bulb  
temperature of the outlet air ($T_{db,out}$),  
373 \begin{equation}\label{eq:temp_out_air}  
374 T_{db,out} = \frac{h_a - 2501 - \omega_{a,out}}{1.006 + 1.86 \cdot \omega_{a,out}}  
375 \end{equation}  
376  
377 The evaporative effectiveness ($\epsilon_{ev}$) is the  
ratio of the obtained change of air temperature and the  
maximum possible change,  
378 \begin{equation}\label{eq:ev_eff}  
379 \epsilon_{ev} = \frac{T_{db,in} - T_{db,out}}{T_{db,in} - T_{wb}}.  
380 \end{equation}  
381  
382 When $T_{db,out} > T_{wb,in}$ means that the mist does  
not saturate the air, therefore the calculated value of  
$T_{db,out}$ is correct and there is no mist remaining  
as water, thus $\dot{m}_{mst,out} = 0$.
```

The outlet humidity ratio ($\omega_{a,out}$) for not saturated air is calculated as

$$\omega_{a,out} = \frac{\dot{m}_{w,out}}{\dot{m}_{da}}. \quad (10)$$

Being an isenthalpic process,

$$h_a = h_{a,in} = h_{a,out} \quad \text{and} \quad T_{wb} = T_{wb,in} = T_{wb,out}, \quad (11)$$

where $h_{a,out}$ and $T_{wb,out}$ are the specific enthalpy and wet bulb temperature of the outlet air.

Using the same relationship as in Eq. (8) but for the specific enthalpy of the outlet air, substituting Eq. (11) and solving for the dry bulb temperature of the outlet air ($T_{db,out}$),

$$T_{db,out} = \frac{h_a - 2501 \omega_{a,out}}{1.006 + 1.86 \omega_{a,out}} \quad (12)$$

The evaporative effectiveness (ϵ_{ev}) is the ratio of the obtained change of air temperature and the maximum possible change,

$$\epsilon_{ev} = \frac{T_{db,in} - T_{db,out}}{T_{db,in} - T_{wb}}. \quad (13)$$

When $T_{db,out} > T_{wb,in}$ means that the mist does not saturate the air, therefore the calculated value of $T_{db,out}$ is correct and there is no mist remaining as water, thus $\dot{m}_{mst,out} = 0$. When the relationship is the opposite ($T_{db,out} < T_{wb,in}$), means that the mist does saturate the air, therefore $T_{db,out} = T_{wb,in}$, and the evaporative effectiveness is 100%. Thus, the outlet humidity ratio is the saturated one for that temperature (ω_a^*) and some water drops from the mist remain as water. The outlet water mass flow remaining from the mist ($\dot{m}_{mst,out}$) is calculated from the water conservation as

$$\dot{m}_{mst,out} = \dot{m}_{mst,in} - \omega_a^* \dot{m}_{da,in}. \quad (14)$$


Comunes denominadores: Publish & Document

The screenshot shows a Quarto presentation slide. At the top, there's a navigation bar with icons for YouTube Premium, search, microphone, and a user profile. The main content area features a large blue hexagon containing the Quarto logo. Below it, the title 'Quarto for academics' is displayed in a large, white, sans-serif font. Underneath the title is the name 'Mine Çetinkaya-Rundel'. The video player interface at the bottom includes a play button, volume control, and a progress bar showing '0:02 / 20:52'. The video content itself shows a dark blue background with the Quarto logo and the title 'Quarto for academics'.

Quarto for academics

Mine Çetinkaya-Rundel

0:02 / 20:52 • Introduction >

Quarto for Academics | Mine Çetinkaya-Rundel

Posit PBC 33.6 k suscriptores Suscribirse

6.3 K vistas hace 2 meses Open Source

This video highlights some of Quarto's features that are especially useful for academics, as educators and as researchers.

Mostrar más

The screenshot shows a Quarto document titled 'penguins.qmd'. The document contains a YAML header with 'title: "Hello, Penguins!"', 'format: html', 'code-link: true', and 'editor: visual'. Below the header is an 'Introduction' section with the text 'For this analysis we'll use the penguins dataset from the palmerpenguins package.' The document also includes R code in the code editor:

```
```{r}
##| label: load-packages
##| message: false

library(tidyverse)
library(ggthemes)
library(palmerpenguins)
library(gt)

##| message: false
library(gtsummary)
library(gtsummary_quarto)
library(gtsummary_quarto::silenciar)
```

Below the code, there's a 'Species' section with a scatter plot titled 'Silenciar (m)'. The plot shows 'Bill depth (mm)' on the y-axis (ranging from 15.0 to 20.0) versus 'Bill length (mm)' on the x-axis (ranging from 40 to 60). The data points are colored by species: Adelie (blue), Chinstrap (orange), and Gentoo (green). A warning message is visible: 'Warning: Removed 2 rows containing missing values ('geom\_point()').' The video player interface at the bottom shows a thumbnail of a woman with glasses and the text '2:27 / 20:52 • Informative YAML errors ...'.

## Resumen:

1. Python
2. GitHub
3. LaTex/Markdown/Quarto
4. Jupyter notebook

## Otras: Editor de texto (Notepad++, textedit, Vim)



The image shows the cover of 'The Weekly Iteration' issue 11. The background is red with black horizontal bars at the top and bottom. The title 'THE WEEKLY ITERATION' is at the top, followed by a large white robot icon. The main title 'IMPROVING VIM SPEED' is in large white letters. Below it is a white horizontal line with the names 'JOE FERRIS & BEN ORENSTEIN' in white. At the bottom is a white robot icon.

THE WEEKLY ITERATION

IMPROVING VIM SPEED

• JOE FERRIS & BEN ORENSTEIN •





[altamarmx.github.com](https://github.com/altamarmx)



Altamar

# Otras: Terminal, oh-my-zsh

```
● ● ● jupyter (python) ⌘1 .yton_guiones (-zsh) ⌘2 +
① 02/8 11:38 a.m. gbv ~ ~/crash_Python_guiones
(base)
[11:37:36]:gbv@chilpayatl: ~/crash_Python_guiones main!
$pwd
/Users/gbv/crash_Python_guiones
(base)
[11:37:39]:gbv@chilpayatl: ~/crash_Python_guiones main!
$git add .
(base)
[11:37:45]:gbv@chilpayatl: ~/crash_Python_guiones main!
$git commit -m 'update libreta 40'
[main 76d7825] update libreta 40
 1 file changed, 1 insertion(+), 32 deletions(-)
(base)
[11:37:56]:gbv@chilpayatl: ~/crash_Python_guiones main
$
```



# Consejos que nadie me pidió

**pero que igual les voy a dar**



[altamarmx.github.com](https://altamarmx.github.com)



Altamar

# Consejos que nadie me pidió

- 1. Aprendan un lenguaje de programación de manera estructurada**
- 2. Aprendan a leer la documentación**
- 3. Dominen un editor de texto**
- 4. Aprendan a usar la terminal**
- 5. Adopten buenas prácticas en sus proyectos**
  - a. Github**
  - b. Espacios de trabajo**
  - c. Buenas prácticas en Jupyter notebook**
  - d. Buenas prácticas para devs**
- 6. Storytelling with data**



# Consejos que nadie me pidió

6. Project/Time management
7. Aprendan lo más que puedan ahora
8. Documenten código y repositorios
9. Sean libres, usen software libre
10. Creen comunidad
11. Sigan sus pasiones



# Consejos que nadie me pidió

11. **Curso de Python en el IER:**
  - a. **7 módulos**
  - b. **Asíncrono**
  - c. **Gratis**
  - d. **Más de 50 videos**
  - e. **Datos y problemas de ingeniería**
  - f. **<https://renovandotalentos.ier.unam.mx/>**



[gbv@ier.unam.mx](mailto:gbv@ier.unam.mx)

[AltamarMx.github.io](https://AltamarMx.github.io)



Altamar



Guillermo Barrios del Valle  
311 suscriptores

