

Un Vistazo a Python



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¿Y eso qué es?



¿Qué es Python?

Python es un lenguaje de programación de propósito general, creado por Guido Van Rossum a finales de 1980, y lleva el nombre de Monty Python, un grupo de comediantes británicos.

Características de Python

- Es interpretado
- Es orientado a objetos
- No se declaran las variables
- No existe el ;
- Se indentan los bloques de código

¿Por qué usar Python?

esto me huele a

lavado de cerebro

- Es útil para cualquier tipo de tarea que tengas que realizar.
- Funciona bastante bien en un entorno web.
- Se parece mucho al idioma Inglés
- Es fácil de aprender.
- Tiene una gran comunidad y mucho material para estudiar.

- Tiene miles de librerías y casi todas se pueden obtener en <https://pypi.python.org>.
- Es libre
- Viene preinstalado en GNU/Linux y MacOS y es fácil de instalar en Windows.
- Ves resultados mucho mas rápido.

¿Qué se puede hacer en Python?

Interfaces Gráficas



What is PyQt?

PyQt is a set of Python v2 and v3 bindings for [The Qt Company's](#) Qt application framework and runs on all platforms supported by Qt including Windows, OS X, Linux, iOS and Android. PyQt5 supports Qt v5. PyQt4 supports Qt v4 and will build against Qt v5. The bindings are implemented as a set of Python modules and contain over 1,000 classes.

The Qt Company no longer supports Qt v4. PyQt5 and Qt v5 are strongly recommended for all new development.

PyQt is dual licensed on all supported platforms under the GNU GPL v3 and the Riverbank Commercial License. Unlike Qt, PyQt is not available under the LGPL. You can purchase the commercial version of PyQt [here](#). More information about licensing can be found in the [License FAQ](#).

PyQt does not include a copy of Qt. You must obtain a correctly licensed copy of Qt yourself. However, binary wheels of the GPL version of PyQt5 are provided and these include a copy of the LGPL version of Qt.

PyQt Components

A description of the components of PyQt5 can be found in the [PyQt5 Reference Guide](#).

A description of the components of PyQt4 can be found in the [PyQt4 Reference Guide](#).

Recent news

PyQt5, PyQtChart, PyQtDataVisualization and PyQtPurchasing v5.7 Released

QScintilla v2.9.3 Released

SIP v4.18.1 Released

pyqtdeploy v1.3 Released

PyQtChart v2.1 Released

Downloads

PyQt4

PyQt5

PyQtChart

PyQtDataVisualization

PyQtPurchasing

QScintilla

SIP

pyqtdeploy

PyGTK



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[Home](#)
[About PyGTK](#)
[Downloads](#)
[Support](#)
[Consulting](#)
[Applications](#)
[Developers](#)

Documentation

[FAQ](#)
[Wiki](#)
[PyGTK Tutorials](#)
[PyGTK Reference](#)
[Articles & Tutorials](#)

Links

[GTK+](#)
[GNOME](#)
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PyGTK: GTK+ for Python

What is PyGTK?

PyGTK lets you to **easily create programs with a graphical user interface** using the Python programming language. The underlying GTK+ library provides all kind of visual elements and utilities for it and, if needed, you can develop full featured applications for the GNOME Desktop.

PyGTK applications are truly **multiplatform** and they're able to run, unmodified, on Linux, Windows, MacOS X and other platforms.

Other distinctive features of PyGTK are, besides its **ease of use** and rapid prototyping, its first class accessibility support or the capability to deal with complex multilingual or bidirectional text for fully localized applications.

PyGTK is **free software**, so you can use, modify, distribute and study it with very few restrictions (LGPL license).

Note: New users are encouraged to use GTK+3 through the [PyGObject bindings](#) instead of using PyGTK with GTK+2. Windows users may still want to keep using PyGTK until more convenient installers are published.

Latest news

PyGTK 2.24.0 released

Friday 01 April 2011 by Rafael Villar Burke

PyGTK 2.24.0 has been released. This is a stable release supporting the GTK+ 2.24 API.

New users wishing to develop Python applications using GTK+ are recommended to use the GObject-Introspection features available in PvGObject.

Videojuegos

Pygame

pygame

- News
- About
- Screenshots
- Downloads
- Documentation
- Tutorials
- Pygame FAQ
- Help (irc, lists)
- Bugs & Patches
- Mercurial
- Links
- Resources
- What's New
- Wiki
- Cookbook
- RSS Feeds
- Project Comments

projects

arcade	(611)
2d	(579)
pygame	(527)
game	(260)
puzzle	(237)
shooter	(190)
python	(162)
strategy	(154)
libraries	(151)
other	(143)
...	(100)

pygame



Search the pygame.org website

Downloads

These files available from: <ftp://pygame.org/pub/pygame> | <http://pygame.org/ftp>
Not sure what to download? Read the [Installation Notes](#).

Development versions can be found on the [subversion](#) page - including automatically built windows, and mac binaries.

1.9.1 Packages (August 6th 2009)

Source

- [pygame-1.9.1release.tar.gz](#) ~ 1.4M - source/docs/examples in unix format
- [pygame-1.9.1release.zip](#) ~ 1.5M - source/docs/examples in windows format

Windows

Get the version of pygame for your version of python. You may need to uninstall old versions of pygame first.
NOTE: if you had pygame 1.7.1 installed already, please uninstall it first. Either using the uninstall feature - or remove the files: c:\python25\lib\site-packages\pygame . We changed the type of installer, and there will be issues if you don't uninstall pygame 1.7.1 first (and all old versions).

spotlight

Albow - 2.2

SGC - 0.2.1

our projects

pygame.org welcomes all python game, art, music, sound, video and multimedia projects. If they use pygame or not.

recent releases

Aug 3, 2016

pilas-engine

pilas-engine

Principal

Noticias

Foro

Descargas

Docs

Galería

Videos

Acerca de ...

Características



Está dirigido a personas que comienzan a programar videojuegos y quieren lograr resultados sorprendentes y divertidos en poco tiempo.



Es multiplataforma: funciona en Windows, Gnu/Linux y Mac OS X. Cualquier persona puede utilizar el motor :).



Completamente en castellano: la documentación, los tutoriales y el código programado están en tu idioma.



Cocos2d

The image shows the homepage of the Cocos2d website. At the top, there is a navigation bar with five items: "Home" (highlighted in blue), "Cocos2d-x", "Cocos2d-XNA", "Cocos2d-ObjC", and "Cocos2d (Python)". Below the navigation bar is a large, vibrant illustration of a forest scene. In the center of the image, there is a semi-transparent dark grey rectangular overlay containing the word "Cocos2d" in a large, white, sans-serif font. Below this, a smaller line of text reads: "Cocos2d is a family of open-source software frameworks for building cross-platform games&apps." The background of the page features a dense, stylized forest with various trees, rocks, and small, dark, eye-like shapes.

Home Cocos2d-x Cocos2d-XNA Cocos2d-ObjC Cocos2d (Python)

Cocos2d

Cocos2d is a family of open-source software frameworks for building cross-platform games&apps.



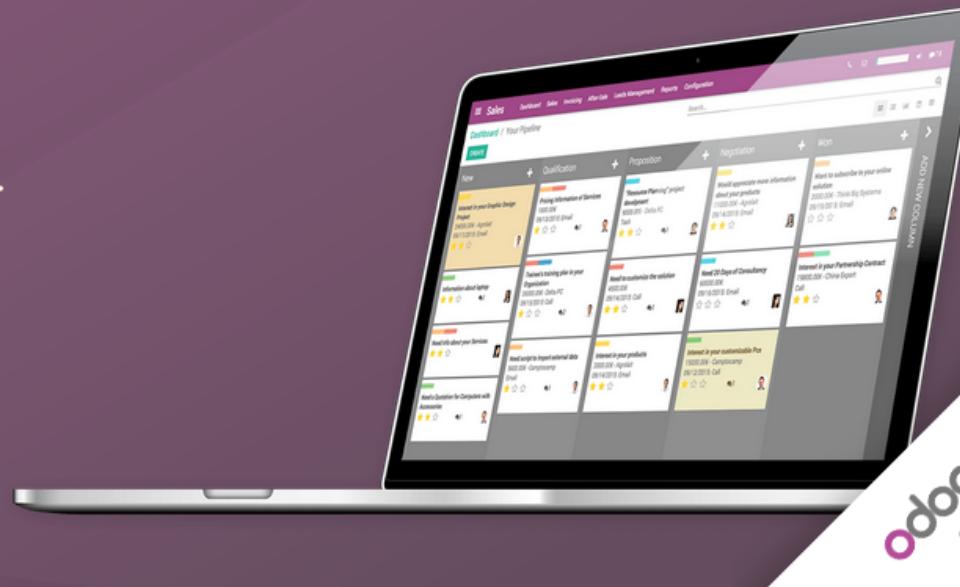
ERPs

Expanda su negocio.

Un software de gestión con todo lo que necesita.

Bonito. Fácil de usar.

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UTILIZADO Y
GARANTIZADO POR



Una necesidad, una aplicación

Tryton

Tryton

Aplicación de tres capas licenciado en GPL-3, escrito en lenguaje Python y usa PostgreSQL como base de datos.

Es el núcleo base de complejas soluciones empresariales que es modular, escalable y seguro.

Base

La base de Tryton (también llamado núcleo Tryton) ofrece todas las funcionalidades necesarias de una plataforma de aplicaciones completa: persistencia de datos, extensa modularidad, administración de usuarios (autentificación, control detallado de acceso a los datos, manejo concurrente a recursos), flujos de trabajo y motores de reportes, servicios web e internacionalización. Se constituye por tanto en una plataforma de aplicación completa que puede emplearse para cualquier propósito relevante.

Módulos

En la actualidad los módulos disponibles en Tryton cubren los siguientes campos de actividad:

- **Contabilidad**
- **Facturación**
- **Gestión de ventas**
- **Gestión de compras**
- **Contabilidad analítica**
- **Gestión de inventario**
- **Fabricación: Manufacturing Resource Planning (MRP)**
- **Gestión de proyectos**
- **Gestión de iniciativas y oportunidades**

Establecen una base sana y sencilla para abstraer conceptos claves para cualquier

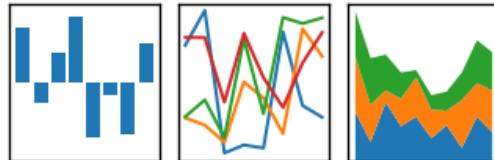
Ciencia

Pandas

Fork me on GitHub

pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$



[overview](#) // [get pandas](#) // [documentation](#) // [community](#) // [talks](#)

Python Data Analysis Library

pandas is an open source, BSD-licensed library providing high-performance, easy-to-use data structures and data analysis tools for the [Python](#) programming language.

pandas is a [NUMFocus](#) sponsored project. This will help ensure the success of development of *pandas* as a world-class open-source project.

A Fiscally Sponsored Project of



0.18.1 Final (May 3, 2016)

VERSIONS

Release

0.18.1 - May 2016
[download](#) // [docs](#) // [pdf](#)

Development

0.18.2 - July 2016
[github](#) // [docs](#)

Previous Releases

0.18.0 - [download](#) // [docs](#) // [pdf](#)
0.17.1 - [download](#) // [docs](#) // [pdf](#)
0.17.0 - [download](#) // [docs](#) // [pdf](#)
0.16.2 - [download](#) // [docs](#) // [pdf](#)
0.16.1 - [download](#) // [docs](#) // [pdf](#)
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matplotlib

We're updating the default styles for Matplotlib 2.0

Learn what to expect in the [new updates](#)



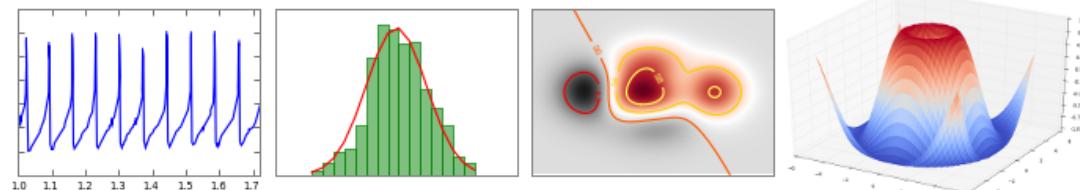
Fork me on GitHub

[home](#) | [examples](#) | [gallery](#) | [pyplot](#) | [docs](#) »

[modules](#) | [index](#)

Introduction

matplotlib is a python 2D plotting library which produces publication quality figures in a variety of hardcopy formats and interactive environments across platforms. matplotlib can be used in python scripts, the python and [ipython](#) shell (ala MATLAB® or Mathematica®), web application servers, and six graphical user interface toolkits.



matplotlib tries to make easy things easy and hard things possible. You can generate plots, histograms, power spectra, bar charts, errorcharts, scatterplots, etc, with just a few lines of code. For a sampling, see the [screenshots](#), [thumbnail gallery](#), and [examples](#) directory

[Depsy](#) 100th percentile

Travis-CI: [build](#) passing

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Enter search terms or a module,

Web

Django



The web framework for
perfectionists with deadlines.

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Django makes it easier to build better Web
apps more quickly and with less code.

[Get started with Django](#)

Meet Django

Django is a high-level Python Web framework that encourages rapid development and clean,
pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web

[Download latest release: 1.10](#)

[DJANGO DOCUMENTATION ▾](#)

Flask



Flask

web development,
one drop at a time

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[overview](#) // [docs](#) // [community](#) // [snippets](#) // [extensions](#)

Flask is a microframework for Python based on Werkzeug, Jinja 2 and good intentions. And before you ask: It's [BSD licensed!](#)

Flask is Fun

Latest Version: [0.11](#)

```
from flask import Flask
app = Flask(__name__)

@app.route("/")
def hello():
    return "Hello World!"

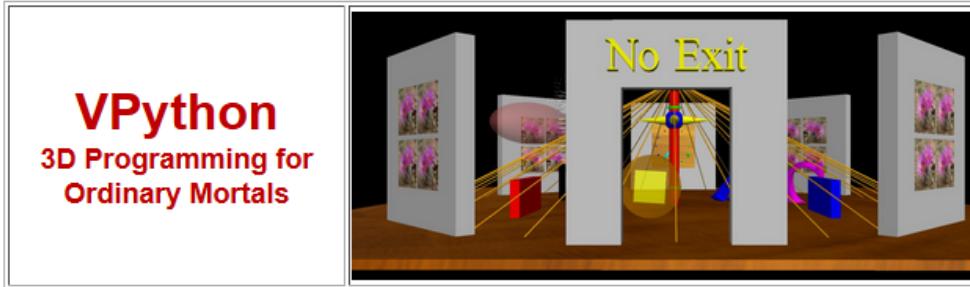
if __name__ == "__main__":
    app.run()
```

And Easy to Setup

3D

VPython

Home
Documentation
Download:
Windows
Macintosh
Linux
New in VPython 6
Change log
VPython wiki
User forum
Contributed programs
For developers
Python web site



VPython makes it easy to create navigable 3D displays and animations, even for those with limited programming experience. Because it is based on Python, it also has much to offer for experienced programmers and researchers.

For a quick introduction, see these YouTube videos:

- [3D Objects](#)
- [Variable Assignment](#)
- [Beginning Loops](#)
- [Loops and Animation](#)
- [Scale Factors](#)
- [Debugging Syntax Errors](#)
- [Lists, Part 1](#)
- [Lists, Part 2](#)

How to get started using VPython

New to Python and/or VPython? GlowScript VPython is a good place to start:

- Go to glowscript.org and create an account.
 - o You should see the sentence "You are signed in as <yourusername> and your programs are here." Click on "here".
 - o Click on "Create New Program" Name it "box" Below the line

Blender con Python

Blender 2.77 Manual



Search docs

Getting Started

User Interface

Editors

- 3D
- Animation
- Image/Video
- Nodes/Logic
- Settings

Other

- File Browser

Python Console

- Usage
- Examples

Data System

Docs » Editors » Python Console

[View page source](#)

Python Console

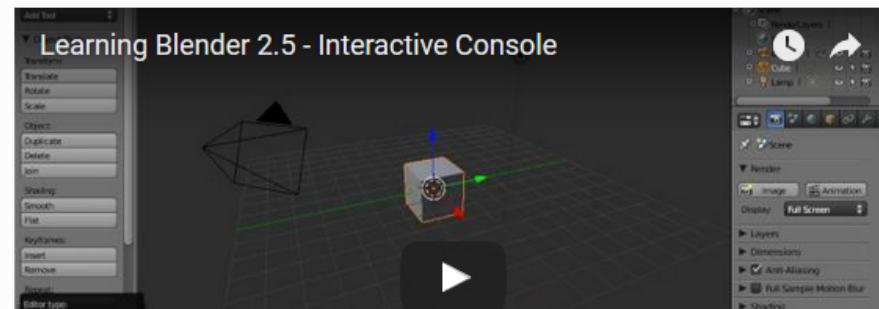
The Python console is a quick way to execute commands, with access to the entire Python API, command history and auto-complete.

Its a good way to explore possibilities, which can then be pasted into larger scripts.

Usage

Accessing Built-in Python Console

Launching the Console using mouse.



Móviles

kivy



Kivy - Open source Python library for rapid development of applications that make use of innovative user interfaces, such as multi-touch apps.

Y muchísimas cosas mas.....

¿Dónde aprender Python?

Python Tutor

[Start shared session](#)

[What are shared sessions?](#)



Write code in ▾

```
1 print "hola mundo"
```

Support our research and keep this tool free by [filling out this user survey](#).

[Visualize Execution](#)

[Live Programming Mode \(NEW!\)](#)

Solo Learn



LEARN PLAYING. PLAY LEARNING

COURSES

CODE PLAYGROUND

DISCUSS

TOP LEARNERS

BLOG

SIGN IN



Python 3 Tutorial

Learn **Python** in the most social and fun way, with SoloLearn!

Learn **Python**, one of today's most in-demand programming languages on-the-go, while playing, for FREE! Compete and collaborate with your fellow SoloLearners, while surfing through short lessons and fun quizzes. Practice writing Python code within the app, collect points, and show off your skills.

When you complete the course, you'll win a **Certificate of Completion** as a trophy!

So don't wait; dive right in! Start coding with Python!

Lessons: 92

? 276 Quizzes

Module 1: Basic Concepts

1 | What is Python?

TAKE THIS COURSE



Python

Python es un lenguaje de programación de uso general, orientado a objetos e interpretado.

EMPEZAR

SINTAXIS DE PYTHON

Sintaxis de Python

Este tutorial te mostrará Python, un lenguaje de programación de uso general, orientado a objetos e interpretado, que podés usar para innumerables proyectos o aplicaciones de scripting independientes.

Calculadora de Propinas

Ahora que completaste la lección sobre sintaxis de

0%



learnpython



Me gusta

8468

Tweet

673

G+

673

Share

4.4K

About

Python Java C JavaScript PHP Shell C# Jobs



Get more out of your work/life balance



H I R E D

Welcome

Welcome to the LearnPython.org interactive Python tutorial.

Whether you are an experienced programmer or not, this website is intended for everyone who wishes to learn the Python programming language.

You are welcome to join our group on [Facebook](#) for questions, discussions and updates.



Code Window

Run

Reset

Solution

Output Window

Expected Output

Minimize Code Window

```
1 # Welcome to the Interactive Python Tutorial.  
2 # Start by choosing a chapter and  
3 # write your code in this window.  
4  
5 def saludo(cadena):  
6     print cadena  
7  
8 saludo("Hola mundo")  
9
```

Hola mundo

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¿Y como empiezo a programar?

Terminal

```
C:\Windows\system32\cmd.exe - python
G:\workspace\drf_sample>python
Python 2.7.10 (default, May 23 2015, 09:40:32) [MSC v.1500 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> print "PyDay Piura"
PyDay Piura
>>> a = 5
>>> b = 6
>>> c = a+b
>>> print c
11
>>>
```

IPython

```
C:\Windows\system32\cmd.exe - ipython

G:\workspace\drf_sample>ipython
Python 2.7.10 (default, May 23 2015, 09:40:32) [MSC v.1500 32 bit (Intel)]
Type "copyright", "credits" or "license" for more information.

IPython 4.2.0 -- An enhanced Interactive Python.
?           -> Introduction and overview of IPython's features.
%quickref -> Quick reference.
help        -> Python's own help system.
object?     -> Details about 'object', use 'object??' for extra details.

In [1]: print "Hola PyDay"
Hola PyDay

In [2]: a = 5

In [3]: b = 10

In [4]: c= a+b

In [5]: print c
15

In [6]:
```

Jupyter y los Notebooks

jupyter Básico Last Checkpoint: a few seconds ago (autosaved) Python 2

In [1]: `print "PyDay Piura"`
PyDay Piura

In [2]: `a = 4`

In [3]: `b = 5`

In [4]: `c = a+b`

In [5]: `print c`
9

In []:

¿Y los IDE?

Eclipse

workspace - PyDev - siad/seguridad/forms.py - Eclipse

File Edit Source Refactoring Navigate Search Project Pydev Run Window Help

PyDev Package Expl... forms

```
1 # -*- coding: utf-8 -*-
2 from django import forms
3 from django.core.exceptions import ValidationError
4 from django.contrib.auth.forms import AuthenticationForm
5 from django.contrib.auth import logout
6
7 class FormularioCambioPassword(forms.Form):
8     password_actual = forms.CharField(widget=forms.PasswordInput(attrs={'class': 'form-control'}))
9     password_nueva = forms.CharField(widget=forms.PasswordInput(attrs={'class': 'form-control'}))
10    password_verificacion = forms.CharField(widget=forms.PasswordInput(attrs={'class': 'form-control'}))
11
12    def __init__(self, *args, **kwargs):
13        self.request = kwargs.pop("request")
14        super(FormularioCambioPassword, self).__init__(*args, **kwargs)
15
16    def clean_password_actual(self):
17        if self.cleaned_data.get('password_actual') and not self.request.user.check_password(self.cleaned_data['password_actual']):
18            raise ValidationError('La contraseña ingresada no es la actual.')
19        return self.cleaned_data['password_actual']
20
21    def clean_password_nueva(self):
22        if self.cleaned_data.get('password_nueva') and not len(self.cleaned_data['password_nueva'])>6:
23            raise ValidationError('La nueva contraseña no cumple los requisitos de seguridad mínimos.')
24        return self.cleaned_data['password_nueva']
25
26    def clean_password_verificacion(self):
27        if self.cleaned_data.get('password_nueva') and self.cleaned_data.get('password_verificacion') and self.cleaned_data['password_nueva'] != self.cleaned_data['password_verificacion']:
28            raise ValidationError('Las contraseñas no coinciden')
29        return self.cleaned_data['password_verificacion']
```

Console PyUnit

```
runserver
August 19, 2016 - 12:28:44
Django version 1.8.13, using settings 'siad.settings.local'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[19/Aug/2016 12:28:48] "GET /compras/crear_requerimiento/ HTTP/1.1" 302 0
```

¿Qué mas falta?

Entornos virtuales

Un entorno virtual de Python es un espacio completamente independiente de otros entornos virtuales y de los paquetes instalados globalmente en el sistema.

Me permite instalar diferentes versiones del mismo paquete en diferentes entornos virtuales.

Instalación de Paquetes

Python incluye la posibilidad de ampliar su funcionalidad con paquetes, que no son sino nuevas funciones que se añaden a los scripts para ampliar funcionalidades.

¿Quienes usan Python?

En el mundo

- Dreamworks
- Pixar
- Lucas
- Disney
- Google, etc

En el Perú

- La Mula.pe
- INEI
- Diario Correo
- Un montón de empresas de desarrollo.

En Piura

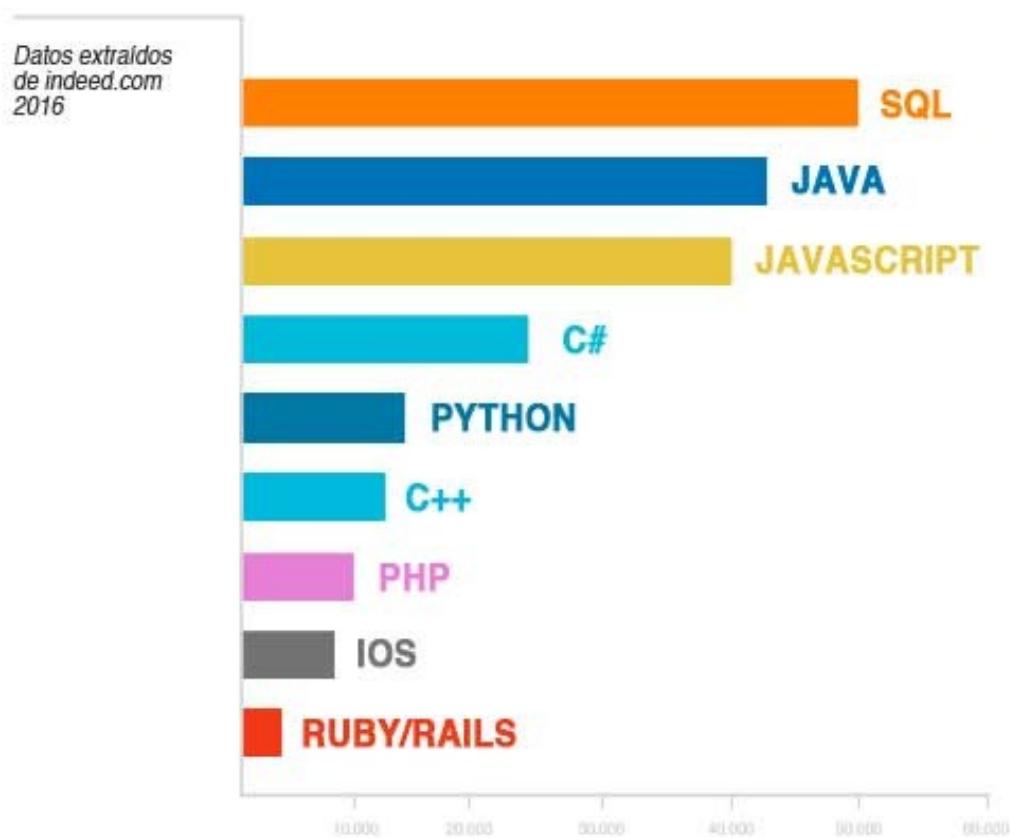
Los lugares por donde he pasado :-P

- Colegio de Contadores
- Servicio de Administración Tributaria
de Piura
- Región para Todos

¿Y hay chamba?

En el mundo

Lenguajes ordenados por demanda de empleo



En Perú también

The image is a job advertisement for a Python programmer. At the top, there's a logo for 'ARONNAX' with a small tagline below it. Below the logo is a cartoon illustration of a blue alien-like character riding a white horse-like creature, with a small alien ship flying above them. The main headline is '¡ESTAMOS BUSCÁNDOTE!' in large red capital letters. Below this, a blue curved line spans across the page, containing the text 'Requerimos artistas para el proyecto más importante en animación 3D en Latinoamérica'. In the center, there's a large logo for 'Co Dorito' with the subtitle 'LA PELÍCULA EN 3D'. Below the logo, the job title 'Programador Python' is displayed in large blue capital letters, with 'con interés en 3D' underneath it. To the left of the title, there's a small illustration of a blue alien character. To the right, there's a small illustration of a white horse-like creature. Below the title, the word 'INTERESADOS' is centered between two small alien head icons. Further down, instructions are given: 'Mandar CV al siguiente correo' followed by an email address 'recruitment@aronnax.pe' and the subject 'Asunto: PROGRAMADOR Python'. The bottom of the page features several small illustrations of alien ships and stars.

ARONNAX

¡ESTAMOS BUSCÁNDOTE!

Requerimos artistas para
el proyecto más importante en animación 3D en Latinoamérica

Co Dorito
LA PELÍCULA EN 3D

Programador Python
con interés en 3D

INTERESADOS

Mandar CV al siguiente correo

recruitment@aronnax.pe

Asunto: PROGRAMADOR Python

**Quiero unirme, ¿Dónde los
encuentro?**

Estamos en la red

- www.pythonpiura.org
- <https://www.facebook.com/pythonpiura>
- <https://twitter.com/pythonpiura>
- <https://github.com/pythonpiura>
- pythonpiura.slack.com

**Muchas gracias, ahora si disfruten de
las demás charlas :-)**