

Showing some of the goodies: pandas, scikit-learn and matplotlib

Celia Cintas

Pre-SciPyLa 2015



\$ whoami

- ▶ Estudiante de Doctorado en Ciencias de la Computación (UNS).
- ▶ Docente en UNPSJB.
- ▶ Trabajo en proyectos del CENPAT-CONICET y el Lab de Cs de las Imágenes.
- ▶ Co-Organizadora of SciPyCon Argentina 2013 y 2014.



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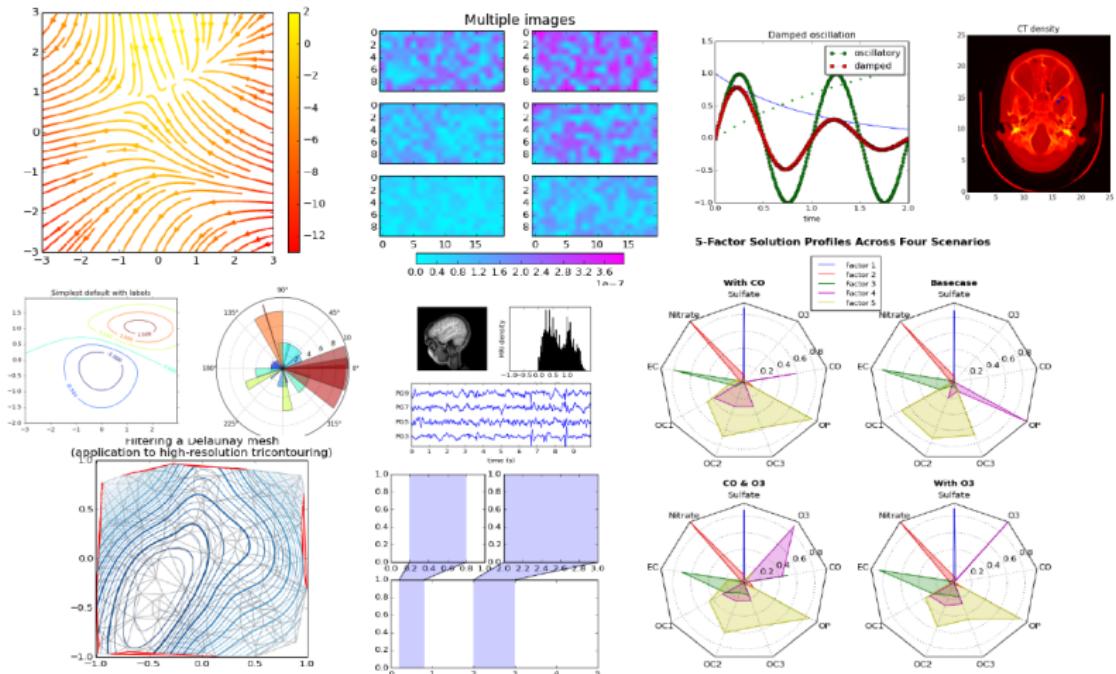
¿Qué es Python ?

Python es un lenguaje de programación dinámico de propósito general. Algunas de sus características son:

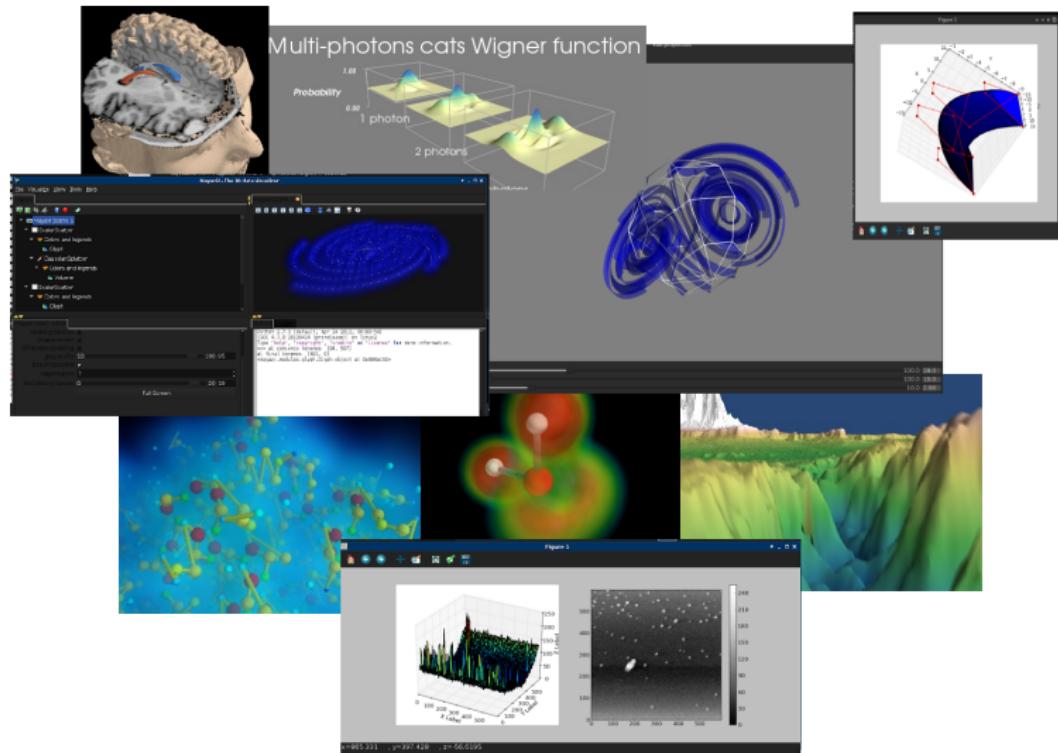
- ▶ Fácil de aprender.
- ▶ Es todo terreno.
- ▶ Es libre, con un ecosistema libre.
- ▶ Interactivo, pueden verse resultados rápidamente.
- ▶ Puede comunicarse con otros lenguajes fácilmente.(R, Fortran, C, C++, LaTeX)
- ▶ Argentina tiene la comunidad hispanohablante más grande.
- ▶ Muy bien documentado.



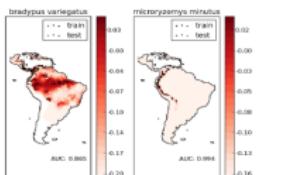
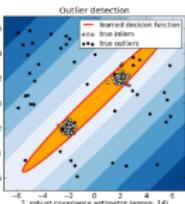
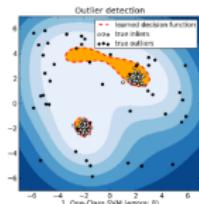
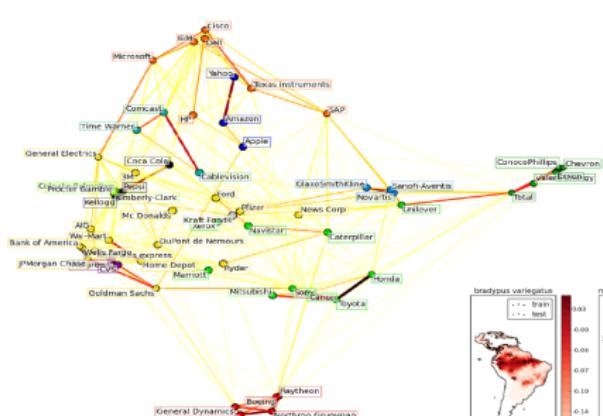
Qué podemos hacer con Python?



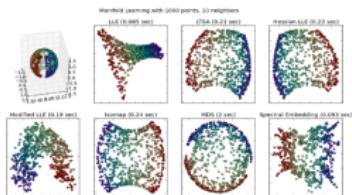
Qué podemos hacer con Python? (Cont.)



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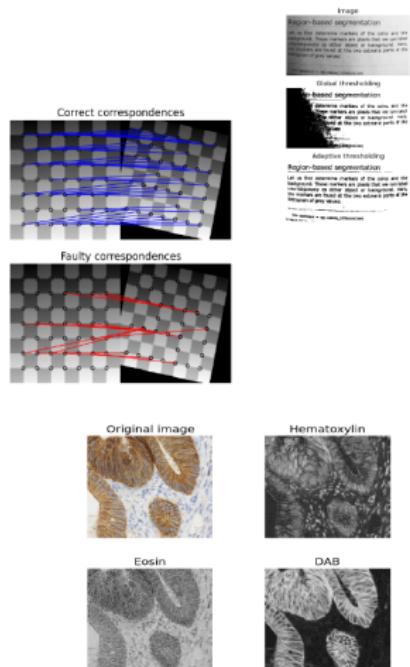
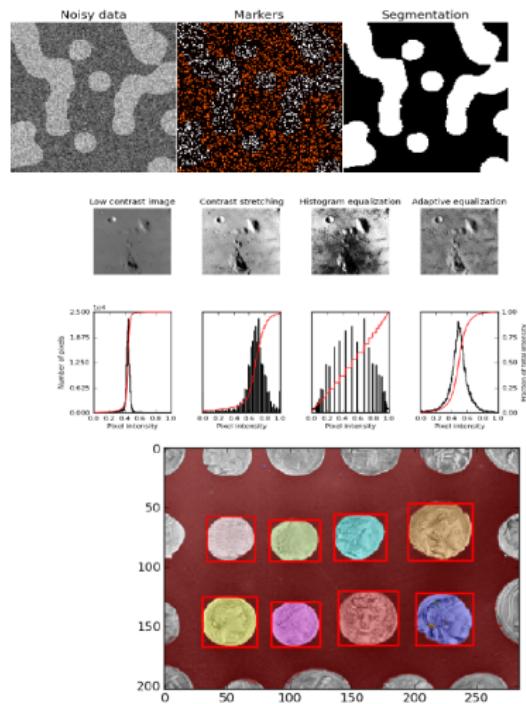


K-means clustering on the digits dataset (PCA-reduced data)
Centroids are marked with white cross



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Qué podemos hacer con Python? (Cont.)

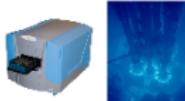


Flujo de trabajo básico

jupyter



www.phdcomics.com



scikit-bio



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Cómo se instala todo esto?!

- ▶ Linux
 - ▶ # apt-get install ...
 - ▶ # pacman -S ...
 - ▶ # pip install ...
- ▶ Multiplataforma
 - ▶ Anaconda
 - ▶ Canopy
 - ▶ Python(x,y)
- ▶ Mac OS
 - ▶ SciPy SuperPack

Instalando Anaconda ...

Welcome to the Anaconda 1.8.0 (32-bit) Setup Wizard

The wizard will guide you through the installation of Anaconda 1.8.0 (32-bit).

It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.

Click Next to continue.

Next > Cancel

CONTINUUM ANALYTICS

License Agreement

Please review the license terms before installing Anaconda 1.8.0 (32-bit).

Press Page Down to see the rest of the agreement.

Accept End User License Agreement

Anaconda ("the Software Product") and accompanying documentation is licensed and copyrighted by Continuum Analytics, Inc. and its subsidiaries, affiliates, and supplies (collectively "Continuum"). An intellectual property license is granted to you to use the Software Product. You are not allowed to download, use, copy, or change the Software Product subject to these rights and to all the terms and conditions of the End User License Agreement ("Agreement").

If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install Anaconda 1.8.0 (32-bit).

Continuum Analytics, Inc. < Back I Agree Cancel

CONTINUUM ANALYTICS

Select Installation Type

Please select the type of installation you would like to perform for ANACONDA 1.8.0 (32-bit).

Install for:

Just Me (recommended)

All Users (requires admin privileges)

CONTINUUM ANALYTICS

Choose Install Location

Choose the folder in which to install Anaconda 1.8.0 (32-bit).

Setup will install Anaconda 1.8.0 (32-bit) in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.

Destination Folder

C:\Users\user\Anaconda

Browse...

Space required: 289 MB

Space available: 11.3GB

CONTINUUM ANALYTICS

Advanced Installation Options

Customize how Anaconda integrates with Windows

Advanced Options

Add Anaconda to the system PATH environment variable

This ensures that PATH is set correctly when using Python, IPython, and any other program in the Anaconda distribution. This also ensures they appear in the Start Menu under "Continuum Python" (located in the Start menu under "Anaconda (32-bit)").

Register Anaconda as the primary Python 2.7

This will allow other programs, such as Python Tools for Visual Studio, PyCharm, Wing IDE, IPython, and Matplotlib packages, to automatically detect Anaconda as the primary Python 2.7 on the system.

CONTINUUM ANALYTICS

Installing

Please wait while Anaconda 1.8.0 (32-bit) is being installed.

Execute: "C:\Users\user\Anaconda\Anaconda1.8.0\python\python.exe"

Show details

CONTINUUM ANALYTICS

Installation Complete

Setup was completed successfully.

Completed

Show details

CONTINUUM ANALYTICS

Completing the Anaconda 1.8.0 (32-bit) Setup Wizard

Anaconda 1.8.0 (32-bit) has been installed on your computer.

Click Finish to close the wizard.

< Back Finish Cancel



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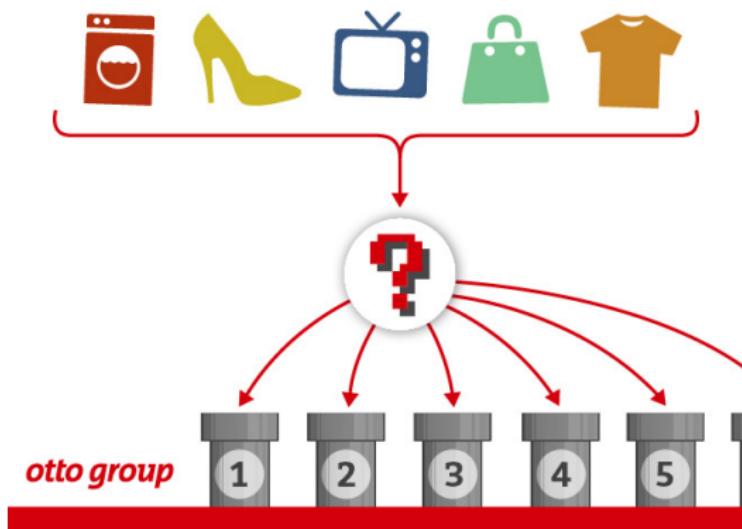
Instalando Anaconda ... (Cont.)

Qué es lo que acabamos de instalar?

- ▶ Spyder.
- ▶ Ipython Notebook.
- ▶ Ipython QTConsole.
- ▶ Ipython.
- ▶ Anaconda Console.
- ▶ Wakari.

A programar ...

Otto es una Empresa de venta de productos, en este dataset nos muestran 93 *features* por las cuales tenemos que clasificar al nuevo producto entrante en alguna de las 9 categorias existentes.



Gracias!

WHAT ARE YOU THANKFUL FOR? phd.stanford.edu

