

Pycascades 2018

Conference Highlights

What is PyCascades?

1st Time Python Conference organized by the organizers of the Vancouver, Seattle and Portland Python meetups

Keynote - Guido van Rossum

<https://www.dropbox.com/s/6dt5kgk3vjsi3yf/PyCascades2018.pptx?dl=0>

Who is Guido?

- <https://gvanrossum.github.io/>
- Dutch programmer with 27 years python experience.
- Invented Python during office Christmas closure in 1989.
- Currently works for Dropbox

Python 3

- Been around for nearly a decade
- A one-time backward compatibility break from Python 2.x to fix serious underlying issues
- Python 2.7 will EOL in 2020. There will be no Python 2.8
- All companies should be working on their Python 2.7->2.8 migration strategy now

Software Licences as a User - Holly Becker

https://docs.google.com/presentation/d/1NGAzLPPOPS6v_q8mLxjJpJphoEAfV9Cs4FEVzM9JWKs/edit#slide=id.g1e424ab042_0_65

Common Licences

- Closed Source - closed
- MIT - permissive, must keep license with code, disclaims liability
- BSD - permissive, must keep license with code, disclaims liability, no endorsement - from Berkley
- Apache - permissive, must keep license with code, disclaims liability, grants patent rights
- GPL - Strong copyleft licence,

Can I use that code? If my code has this licences and the code I want has this other licence?

- Closed source + MIT
- Closed Source + GPL
- GPL + MIT
- GPL + GPL
- MIT + MIT
- MIT + GPL

A Web App in Four Frameworks - Nicholas Walker

https://docs.google.com/presentation/d/1LkAkmpUu_vqc1h8FxxKRyEH59A-8-7ss88-Z9Wkk_ms/edit#slide=id.p

To do List App in 4 Web Frameworks.

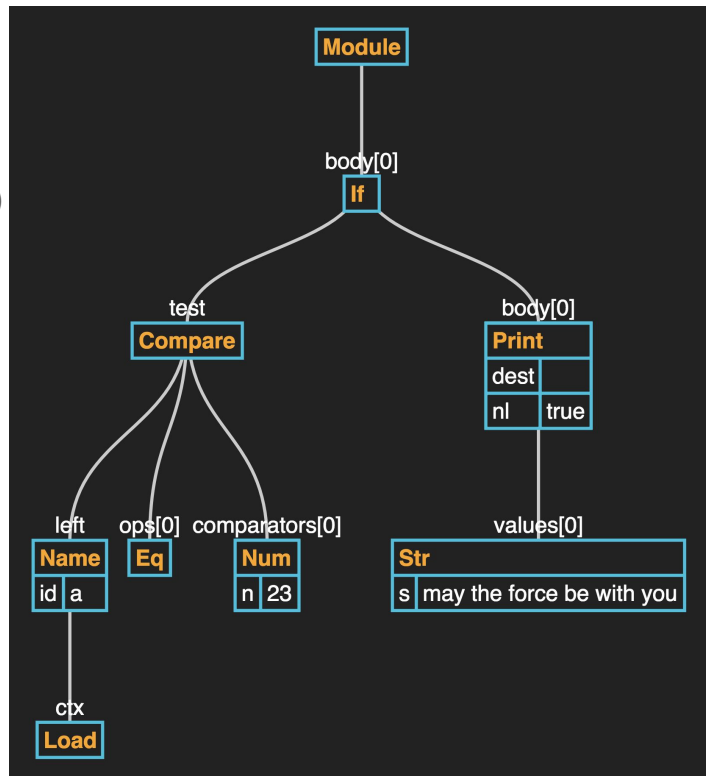
- App has a Web UI, Server + DB. App offers some basic CRUD operations
 - Flask (+ sql alchemy)
 - Tornado
 - Django
 - Pyramid

Python AST - Emily Morehouse-Valcarcel

<https://emilyemorehouse.github.io/ast-and-me/>

What is it?

- Python AST is used to create Python byte-code (.pyc files)
- An AST is a tree representation of code syntax and logic.
- Eg: if a == 23: print("may the force be with you")
 - Side note see print is function in Py3
- Several Types of AST optimizations happen.
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Python Magic Methods - Nick Denny

<https://www.dropbox.com/s/qdbrdv7zjsrjp7o/PyCascades%20-%20Its%20A%20Kind%20of%20Magic.pptx>

With Python you can override what operators do by overwriting special methods and also do cool meta-program

Eg:

`__str__` toString()

`__le__` comparison

`__add__` arithmetic

```
>> import MonicasMagicClass
>> a = MonicasMagicClass('a')
>> b = MonicasMagicClass('b')
>> print a
Hello World! I'm a
>> a + b
ab
>> a < b
Nope
```

Racial Bias in Facial Recognition Software - Stephanie Kim

<https://blog.algorithmia.com/racial-bias-in-facial-recognition-software/>

Garbage in garbage out.

Be very careful with what data is used to train your machine learning models

Ask questions about how machine learning models were trained to evaluate
caveats in what the ML outputs.

Python as a second language - Tom Ballinger

<http://ballingt.com/python-second-language-empathy/>

Does not focus on new syntax like list comprehension or lack of curly braces.

Instead defines these types of features as important and tricky for second language learners

- Looks similar to Java or C++, but is different
- Differences that are rarely observed
- Differences that aren't visible in code

Accessibility in Web Development - Lindsey Dragun

<http://dragun.tech/pycascades/>

Gain awareness of how web UI features affect people with disabilities

Tools and Standards for evaluating accessibility

- screen readers
- mouse focus/ ability to navigate without a mouse
- Content amount/layout/outlines >> anxiety, ADHD
- English as a second language

RaspberryPy to RustyPi - Anna Liao

<https://www.slideshare.net/secret/IUQ7YxnKo6C8Od>

Walk through of project and code to learn Rust - a systems programming language

- Rust is a language for highly concurrent and highly safe systems
- See also: Go, Rust and C++
- Need to know a lot more about the how the code is stored and executed on hardware
- Some unique concepts with this language in terms of variable assignment
- Cryptic compile time errors
- Steeper learning curve
- Emerging community

Setting Expectations for Open Source - Brett Cannon

Better ways of collaborating to avoid burnout

Navigating Unconscious Bias - Anna Schneider

<https://speakerdeck.com/aschn/navigating-unconscious-bias>

What is unconscious Bias?

How does it happen?

What impact does it have?

Unconscious Bias Project - cartoons + actionable advice

Testing a Giant Python Codebase - Yusuke Tsutsumi

<https://docs.google.com/presentation/d/1nDlzNuuFXsLIRIT2xCJG55WSRKThY1jZIJg9mVv1hs0/edit>

This presentation deserves a LnL onto itself

- How can you write code that is more testable?
- How can you have a comprehensive, reliable test suite without spending more time on test maintenance than feature development

Python for Feature Film - Dhruv Govil

How animation and CGI works and where Python is used in this process

Those Who Care, Teach!

Why is technical teaching important?

How to build a culture of knowledge sharing?

How to effectively teach / learn something?

Others

Gradual Typing

Charactre Encoding

Barcodes

Spreadsheets

IoT and MicroPython

Full Schedule with slide deck links: <https://www.pycascades.com/schedule/>