Cross-Platform Apps Dev in Python

2013: Back to the desktop

http://www.gmvault.org
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http://www.gmvault.org

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Future of Python?

- Have to seriously think on the future of Python
- Strong in the scientific community

- Web Backend: Was and still strong but
  - HTML5/javascript will soon everywhere

- Server Side, New comer: go lang, ...

- Python doesn't want to be the next Fortran
Find new areas of growth for Python
Develop Desktop Cross Platform Apps
Many distribution platforms
Many distribution platforms
Many distribution platforms
Why is Python a valid candidate?
Python fulfilling 90's Promise

- Interpreter identically running on the main platforms
  Win 32, Windows 8, Mac OSX and Linux

Develop once run everywhere
Hmm reminds me of something!
Can access OS functions

- Support for Posix API on all systems

- Filesystem API is the C one: simplest abstraction to a file system
  - os module for operations on files and dirs
  - os.path to do path resolution

- System Environment variables supported
  - important for easily configuring your app
  - os.env("HOME")
Posix Included

- Support for Processes
  - fork, execv, spawn

Support for IPC
  - Pipes, shared memory

- Support for Threads
  - ok to run a GUI loop and associated treatment in parallel
But not always sufficient!

- Underlying file systems differ and Windows Filesystem is ... troublesome

- Stupidly slow when it comes to read directory contents

- On Linux: 2 sec to list 250K emails over 50 Dirs while more than 30 sec on Win
  - Gmvault has a lazy read function and caching strategy for the emails
Extend it if needed

- Can access the C/C++ libs on Win and Lin
  - call up DLLs and C libs
- ctypes is excellent for prototyping
- Can access objC libs with pyobjc
- Means that you will not be cross-plateform
What is missing ?
Graphical Interfaces

- Cross platform
- Native UI
- Powerful (multiple widgets)
- lively community around these frameworks
But ...
The Obvious

- Build UI with what you know
- Don't want to learn a new framework
- Easier to transform your App in a SaaS
Python - HTML5 Bridge

Create multi-platform desktop apps with HTML5, CSS3 and JavaScript

TideSDK is the new standard for creating beautiful and unique desktop apps using your web development skills.

http://www.tidesdk.org
nodewebkit: My Choice

- use chromium for rendering
- use nodejs for the UI backend
- Python for the business part
- more DIY but more freedom
Packaging Tools

- Packaging is critical to provide an easy install

- PyPi with pip + virtualenv is fantastic
  - Why do I have to install setuptools (ez_setup.py) to install pip

- This is for Nerds and Geeks

- Can offer that kind of packaging for Linux
Packaging Tools (ctd.)

- For Windows, you need a self-contained package

- You can package python.exe in your distribution but it is tedious

- Build an executable including all Python assets (interpreter, modules)

- This is done with py2exe (http://www.py2exe.org/)
Packaging Tools (ctd.)

- py2exe is dying

- Not been updated since 2008

- You need to be a Google search guru to find the documentation
Packaging Tools

Need somebody in this room to start working on it!!

The Python community needs you!
Open Source Dev Experience
Start Open Sourcing now

http://www.gmvault.org

Gmvault
Gmail Backup

Learn More  Download Gmvault (1.8.1-beta)  Support Gmvault

Billions of emails saved with Gmvault since its creation.
Backup and restore your gmail account at will.

Featured in:

lifehacker  techcrunch  FSM  webmonkey  addictive tips  Y

http://www.gmvault.org
Kill Your Television (Ned's Atomic Dustbin)
Open Source Now!

- Your own personal tailored training
- Your CV will shine
- Incredibly rewarding
- Unique sense of freedom and control
- Unique ideas could allow you to be financially successful
### Open Source Success Triumvira

**Repository Details**

- **Gmail Backup Software**: [Website](http://www.gmvault.org)
- **Commits**: 959
- **Branches**: 7
- **Releases**: 10
- **Contributors**: 8

**Merge Pull Request**

- **From**: sergevanderachter/ignore-build
- **Author**: gaubert
  - **Commited**: a month ago
- **Files**:
  - etc: add for getting automatic stats in Google Spreadsheet
  - req: python
  - .gitignore: ignore build files from setup.py
  - .project: add project files
  - .pydevproject: fixing issue with muted flag
  - AUTHORS.md: add AUTHORS.md
  - CNAME: add CNAME
  - GNU-AGPL-3.0: add GPLv3 licensing
  - MANIFEST.in: add release note and fix Makrfile
  - Makefile: prepare release of 1.8
  - PKG-INFO: add argparse to have is working with python2.6
  - README.md: update readme
  - RELEASE-NOTE.txt: update release note
  - THIRD-PARTY-NOTICES: add GPLv3 licensing
  - setup.py: Improve mod_ldap

**GitHub Logo**

![GitHub Logo](https://github.com/images/120x120.png)

**Social Coding**

![Social Coding Logo](https://github.com/images/120x120.png)
1. ▲ Lockdown (manco.org)
   254 points by mh, 4 hours ago | flag | 132 comments

2. ▲ Bolivia says Morales’ plane diverted, apparently over Snowden (reuters.com)
   35 points by alanmorland 6 hours ago | flag | 22 comments

3. ▲ An Open Letter to Craig Newmark (krrb.com)
   122 points by pg 4 hours ago | flag | 38 comments

4. ▲ Dropbox will kill your insane MacBook Air 2013 battery (nicolaschulze.com)
   33 points by nicoischulze 2 hours ago | flag | 26 comments

5. ▲ How the NSA taps fiber at the bottom of the oceans (pastebin.com)
   89 points by car 6 hours ago | flag | 43 comments

6. ▲ Releases – a workflow for shipping software to end users (github.com)
   415 points by rvd 64 hours ago | flag | 60 comments

7. ▲ Bolivian president’s plane forced to divert over a rumor Snowden was on board (sbs.com.au)
   17 points by stoolie1524 3 hours ago | flag | 6 comments

8. ▲ Why I’m not paying the Troll Toll (toddmoore.com)
   200 points by causally130 18 hours ago | flag | 30 comments

   137 points by tinginan 9 hours ago | flag | 42 comments

10. ▲ How the algorithm for coloring the iTunes song list works (stackoverflow.com)
    47 points by ops 4 hours ago | flag | 15 comments

11. ▲ Dwarf Fortress in 2013 (gamasutra.com)
    50 points by quixotes 5 hours ago | flag | 27 comments

12. ▲ Show HN: Easy Email Encryption Inside Email (Alpha, Open-Source) (streak.com)
    131 points by abelheit 6 hours ago | flag | 64 comments

13. ▲ Amazon Web Services’ growth unrelenting (netcraft.com)
    28 points by callam70 4 hours ago | flag | 5 comments

    376 points by numol15 15 hours ago | flag | 119 comments

15. ▲ Why you think your phone is vibrating when it is not (bbc.com)
    52 points by jxibter 7 hours ago | flag | 29 comments

16. ▲ Real-life Tron on an Apple II GS (danielewilden.com)
    112 points by par11 11 hours ago | flag | 16 comments

17. ▲ Internet Explorer 11: “Don’t call me IE” (aaronline.net)
    285 points by maydays 18 hours ago | flag | 177 comments

18. ▲ Bitcoin Foundation’s Response to California Cease & Desist (scribd.com)
    98 points by dustcan 11 hours ago | flag | 28 comments

19. ▲ A Text of letter to Edward Snowden from his father and father’s attorney (washingtonpost.com)
    403 points by euphilit 32 hours ago | flag | 105 comments

20. ▲ Oh, My Hand: Complaints Medieval Monks Scribbled in the Margins of Manuscripts (brainpickings.org)
    190 points by pg 16 hours ago | flag | 74 comments

21. ▲ State Department bureau spent $630,000 on Facebook ‘likes’ (washingtonexaminer.com)
    102 points by skm 9 hours ago | flag | 30 comments
Thank you!

Questions?
No libs for Notification

- No cross-platform python lib for that
Blijf je Wifi de baas!

Wifi of draadloos internet is superhandig, maar evenaard nooit de topkwaliteit van internet via de kabel. Om het allerbeste uit je Wifi te halen, heeft Telenet dit handige hulpmiddel ontwikkeld. Je steekt er heel wat mee op over je Wifi en je kunt er de meest voorkomende Wifi-problemen zelf mee oplossen.

- Word Wifi-slim!
  Verrassende weetjes en handige tips

- Los je Wifi-probleem op.
  Met onze Wifi-lijker

- Deel de Wifi met je vrienden!

- Homespot? Hotspot?