

Creating Games With Python And Java

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About Me

- Amateur programmer and game developer
- High school now, college in the future
- Seeking a job as a developer! *wink wink, nudge nudge*

- CPython is the reference implementation for Python.
- Jython is a Python implementation in Java
- Offers superb interoperability with Java libraries, along with the amazing benefits of the JVM
- 2.7 betas are out!

Comparisons of CPython and Jython

#Jython

```
def fibonacci():  
    a, b = 0, 1  
    while True:  
        yield a  
        a, b = b, a + b
```

#CPython

```
def fibonacci():  
    a, b = 0, 1  
    while True:  
        yield a  
        a, b = b, a + b
```

- A cross-platform Java game development framework based on OpenGL (ES) that works on Windows, Linux, Mac OS X, Android, your WebGL enabled browser and iOS.



My Work with LibGDX

- Translated the LibGDX wiki (GoogleCode -> Github)
- Worked on Polyglot LibGDX (as shown in this very talk!)
- Regular on IRC
- Started game-dev club at my school to teach and create games with LibGDX

LibGDX Classes Of Use

- `ApplicationListener` is the base java interface for a LibGDX game
- `OrthographicCamera` for camera magic
- `SpriteBatch` to draw on the screen
- Standard math classes `Vector2`, `Rectangle`, etc.

Small example!

- Small game from our wiki translated to Python
- To the demo! (I hope this works!)

Limitations of LibGDX with Jython

- GWT
 - This backend is Java only, so *non-Java* HTML LibGDX backend is a pipe dream
 - Scala *might* work, as they seem to have some sort of scala-gwt in the works.
- Enforces an OO approach. Jython translates Python \rightarrow Java using a base Java class, so it must be used.

- Android Support
 - Once Jython can attain DynamicProxy support, it might be possible to have Jython on Android!
- iOS support
 - the RoboVM backend runs the Android class library, so if it can Android, there is a good chance it can iOS!
- Packaging
 - There has been some work on compiling/packaging Jython into jars, this will make distribution of your awesome Python games very easy!
- Possible wrapper library
 - Making LibGDX more pythonic.

Thanks!

- Jim Baker, who has given me lots of insight into Jython, and convinced me to do this talk.
- ZPUGDC (DCPython), for having me. <3
- The internet, for helping me learn so much.

- Jython: <http://jython.org>
- Jython Book: <http://www.jython.org/jythonbook/en/1.0/>
- LibGDX: <http://libgdx.badlogicgames.com/>
- LibGDX Wiki: <https://www.github.com/libgdx/libgdx/wiki>
- This talk: <https://www.github.com/sinistersnare/JythonTalk>
(needs latex-beamer and pandoc)