

SSSSNAKES

In Xcode and your Low Level Debugger



**HI, MY NAME IS
SHEREE AND
I WORK IN XCODE ALL DAY LONG**

**XCODE IS FREE
AND SO ARE YOU**

HAVE AN APP

Or just grab one off of GitHub to play with.

⌘B, ⌘R

LLDB

low level debugger

BREAKPOINTS

SET THEM. THEY CAN BE... CONDITIONAL!

Or just wait for your app to crash
alternately, have me crash it for you, it's my core competency

```
(lldb) bt all
(lldb) print foo
(lldb) expression bar = 42
(lldb) po baz.count
```

&c

**OK, COOL. BUT... WHAT DOES THIS HAVE TO
DO WITH PYTHON??**

YOU CAN

run a Python script after hitting your inevitable crashers

YOU CAN

use python to programmatically interact with LLDB


YOU CAN


do it. I believe in you.


RIGHT. SO...





Behaviors


General


Accounts


Behaviors


Navigation


Fonts & Colors

Text Editing

Key Bindings

Source Control

Components

Locations

Running

Exits unexpectedly

GPU Frame Capture

Starts

✓ Completes

Finds issues

Search

Starts

Completes with results

Completes with no results

Bots

Succeeds

Succeeds with warnings

Fails

I Caused Failure

File

Unlock

Playgrounds

Generates output

Custom

✓ OnCrash

+ -

☒ Play sound

Basso

⌵

☐ Speak announcement using

Alex

⌵

☒ Notify using bezel or system notification

☒ Bounce Xcode icon in Dock if application inactive

☐ Show tab named

in

active window

⌵

☐ Show

⌵

navigator

⌵

Project navigator

⌵

☐ Show

⌵

debugger with

Current Views

⌵

☐ Show

⌵

utilities

☐ Show

⌵

toolbar

☐ Show

⌵

editor as

Current Editor

⌵

☒ Navigate to

current log

⌵

☒ Run

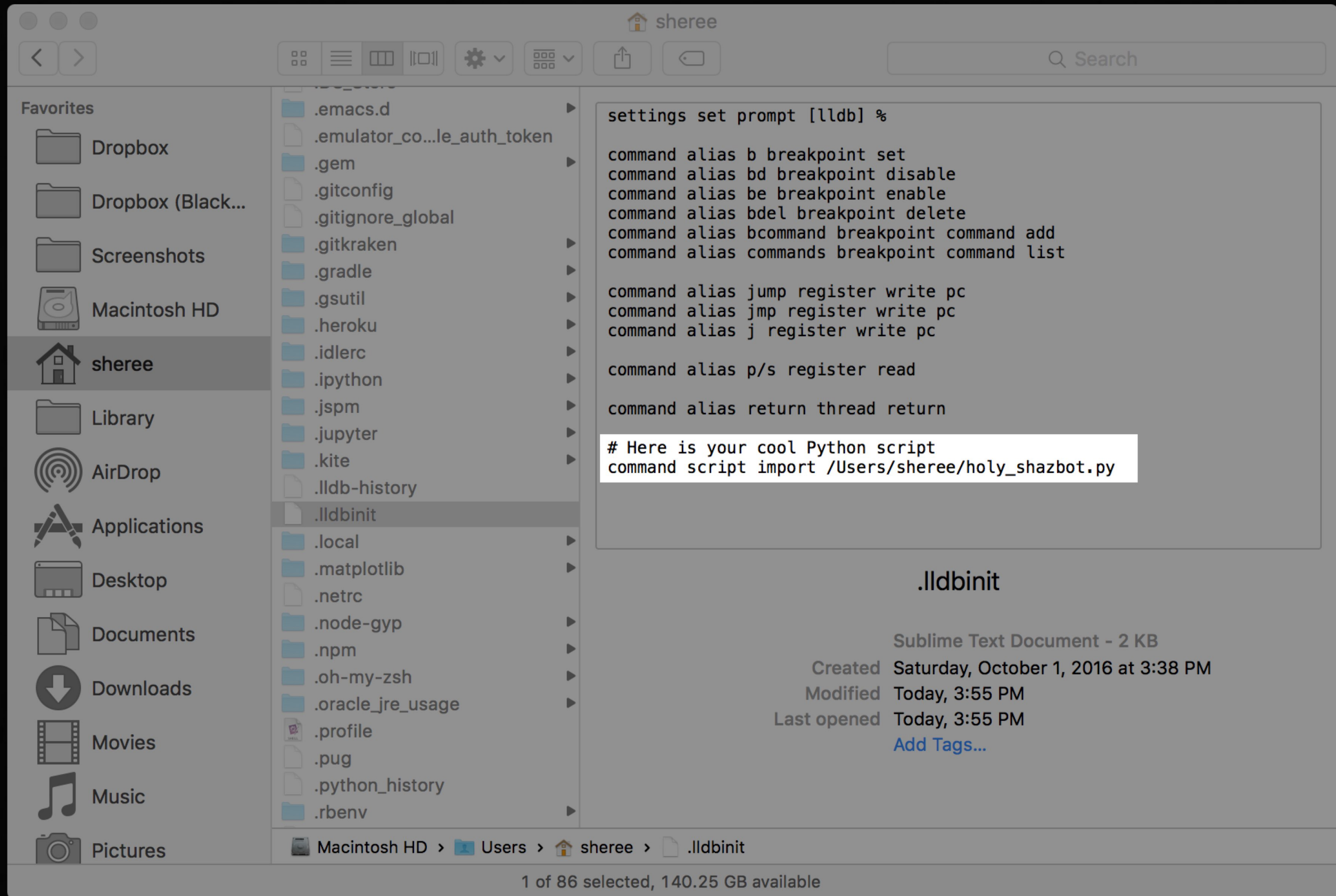
holy_shazbot.py — /Users/sheree/Documents/dev/providen...

⌵

- ▶ **Take a screenshot, collect a backtrace, slap it into JIRA**
 - ▶ **Have the system play a fail horn sound**
 - ▶ **Tweet about hating Xcode**
 - ▶ **Slackbot it**

**AND IF YOU'RE REALLY
BRAVE...**

...and you know how your code works, are familiar with lldb commands, and fluent in python, know what you're trying to achieve, willing to put in the effort, have time to be reading the docs, have the patience to understand them, have time for trial and error, and...



```
settings set prompt [lldb] %
```

```
command alias b breakpoint set
command alias bd breakpoint disable
command alias be breakpoint enable
command alias bdel breakpoint delete
command alias bcommand breakpoint command add
command alias commands breakpoint command list
```

```
command alias jump register write pc
command alias jmp register write pc
command alias j register write pc
```

```
command alias p/s register read
```

```
command alias return thread return
```

```
# Here is your cool Python script
command script import /Users/sheree/holy_shazbot.py
```

.lldbinit

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Macintosh HD > Users > sheree > .lldbinit

1 of 86 selected, 140.25 GB available

The image shows a screenshot of the Xcode IDE interface. On the left, the 'Organizer' pane displays the project structure for 'Sheree iPhone 6S', including CPU, Memory, Energy Impact, Disk, Network, and a list of threads. The 'Thread 1' queue is expanded, showing '0 mach_msg_trap' as the selected thread. The main editor area is split into two panes. The top pane shows the assembly code for 'libsystem_kernel.dylib`mach_msg_trap:', with instructions like 'movn x16, #0x1e' and 'svc #0x80'. The bottom pane shows the 'shazbot' debugger console, displaying a list of commands and their descriptions, such as 'run', 's', 'si', 'sif', 'step', 'stepi', 't', 'tbreak', 'undisplay', 'up', and 'x'. The console also shows the current user-defined commands and a prompt for more information.

SMELL YA LATER



On the off chance this is interesting to you:

(lldb) help

► <http://lldb.llvm.org/python-reference.html>