



How Python helped me break into game development

Susan Shu Chang

Start

About me

Quill Studios

- Developer
- Writer
- PM
- Marketing

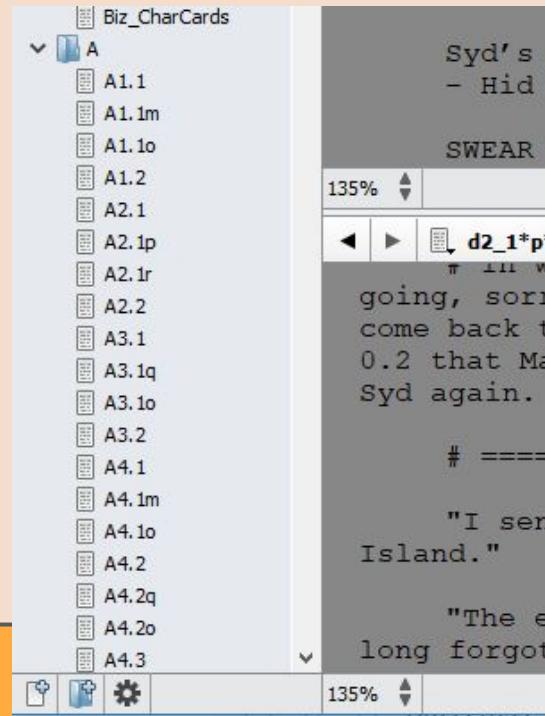


Other work

- Co-organize AISC (ML livestreams)
- Data Scientist

I started this project 2+ years ago...

ASW Draft 0.5 (backup)	Dec 29, 2017
ASW 0.4 Backup	Dec 26, 2017
ASW 0.4 Backup	Dec 26, 2017
ASW Script 0.4	Dec 23, 2017
ASW-Opening Scenes V2.0 ★	Sep 4, 2017



I have the story,
now what?



A Summer with the Shiba Inu, made in Ren'Py



Location:
Canine-da



Talk overview

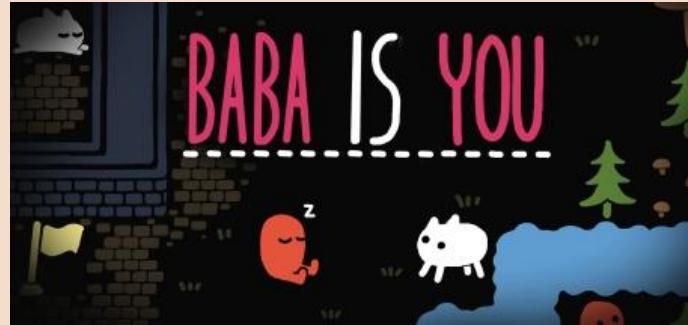
1. Overview of gaming industry
2. Narrative games (visual novels)
3. Ren'Py, open source Python-based game engine

AAA studios typically are large, have funding



Indie studios are smaller, yet grew popular

(Short for independent)



Some “indies” have large budget; ambiguous



Roles in game development

- Narrative design, writing...
- Game programmer, Engine/Physics developer
- Producer, project coordinator...
- 3D artist, animator, concept artist...



Platforms: computer OS and consoles

- Windows, Linux, Mac
- Nintendo Switch
- XBox One
- Playstation 4



Console gaming in India

“The PlayStation 4 was launched at a smashing ₹39,990 in India.”

“The size of the console gaming market in India is estimated [...]”

- ₹700 Crore (7 billion) to ₹750 Crore (7.5 billion) at the basic consumer level
- ₹450 Crore (4.5 billion) for hardware
- ₹250-300 Crore (2.5-3 billion) for software.”



Source: <https://www.spieltimes.com/original/the-ps4s-preponderance-in-india-a-critical-research/>

Python helped me enter “indie” development

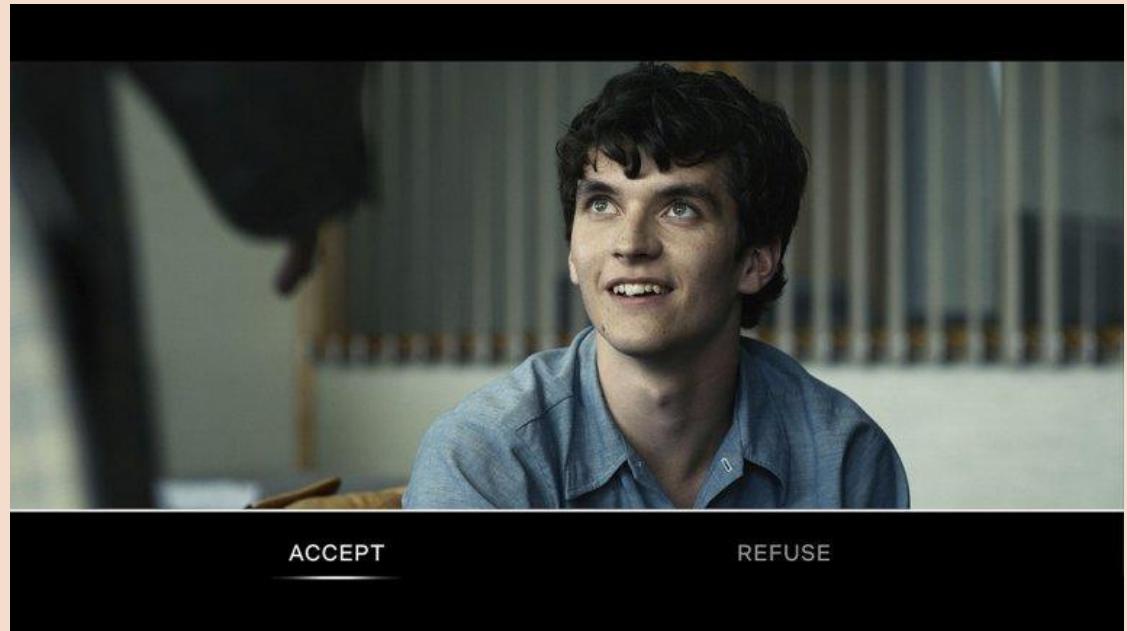
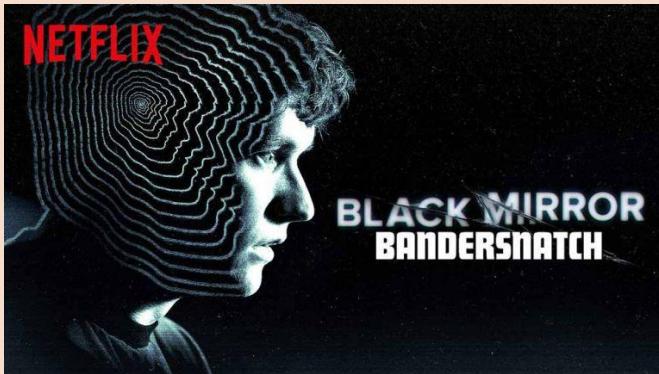
- Already use in my full-time job
- Great documentation
- Object oriented programming



Talk overview

1. Overview of gaming industry
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3. Ren'Py, open source Python-based game engine

“Narrative-driven” can be done many ways



“Narrative-driven” can be done many ways



“Visual novel” style narrative delivery is popular



Persona 5

Credit: Atlus USA

“Visual novel” style narrative delivery is popular



Danganronpa V3

Credit:
Spike Chunsoft

Difficult to build custom engine as solo dev

Custom engines are everywhere!



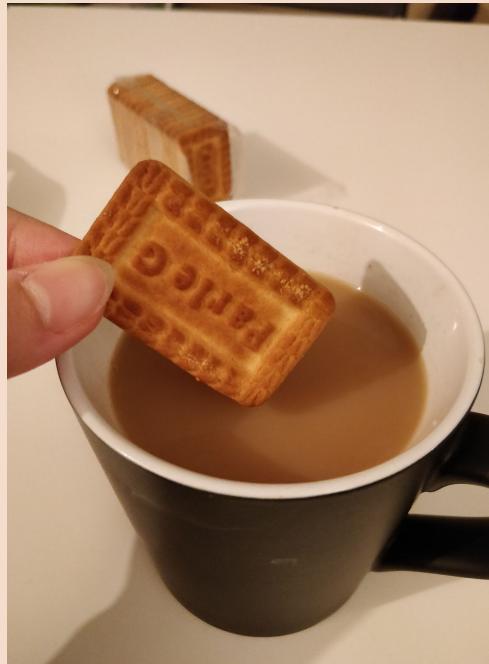
Difficult to build custom engine as solo dev

Custom engines are costly



Difficult to build custom engine as solo dev

Custom engines are everywhere!



Difficult to build custom engine as solo dev

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Talk overview

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Ren'Py is open source & high production

Games made in Ren'Py

- From NaNoRenO to high budget

Screenshot of the GitHub repository for Ren'Py ([renpy/renpy](https://github.com/renpy/renpy)) showing its open source status and activity.

The repository has 132 stars, 1.7k forks, and 292 contributors. It features 9,274 commits, 27 branches, 438 releases, and 98 contributors. The current branch is master. Recent pull requests include:

- renpytom Merge pull request #2054 from Andykl/fix-2053
- gui Remove information about mac signing.
- launcher translation update
- module gl2: Extract model out into its own file.

Latest commit 52aeaf1 was made 1 hour ago.



Ren'Py is open source & high production

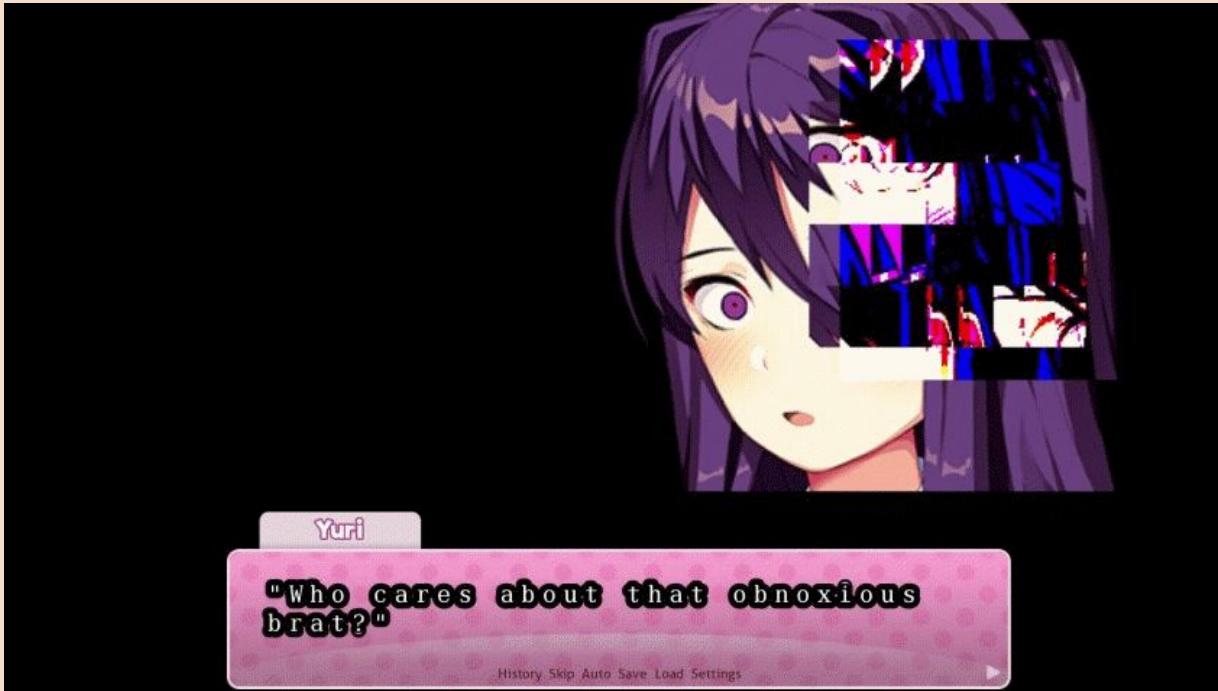
Games made in Ren'Py

- From NaNoRenO to high budget
- PyTom's philosophy
 - “The best way to make visual novels, and give it away for free”



Ren'Py is powerful

Doki Doki Literature Club



Credit:
Team
Salvato

Ren'Py is powerful

Long Live the Queen

The image shows a screenshot of a Ren'Py game interface. On the left, there are two columns of character stats:

Social + 0.000	
Royal Demeanor	- 2.00
Composure	0.0
Elegance	0.0
Presence	0.0
Conversation	+ 0.00
Public Speaking	0.0
Court Manners	0.0
Flattery	0.0
Expression	+ 0.00
Decoration	0.0
Instrument	0.0
Voice	0.0
Physical + 0.000	
Agility	+ 0.00
Dance	0.0
Reflexes	0.0
Flexibility	0.0
Weapons	+ 0.00
Swords	0.0
Archery	0.0
Polearms	0.0
Athletics	+ 0.00
Running	0.0
Climbing	0.0
Swimming	0.0
Animal Handling	+ 0.00
Horses	0.0
Dogs	0.0
Falcons	0.0

Intellectual + 0.125	
History	- 2.00
Novan	0.0
Foreign Affairs	0.0
World	0.0
Intrigue	+ 1.00
Internal Affairs	0.0
Foreign Intelligence	0.0
Ciphering	0.0
Medicine	+ 0.00
Herbs	0.0
Battlefield	0.0
Poison	0.0
Economics *	- 0.75
Accounting	82.6
Trade	36.0
Production	36.0
Military	+ 1.00
Strategy	0.0
Naval Strategy	0.0
Logistics	0.0
Mystical + 0.030	
Faith	+ 0.30
Meditation	0.0
Divination	15.0
Lore	15.0
Lumen	+ 1.00
Sense Magic	0.0
Resist Magic	0.0
Wield Magic	0.0

The right side of the interface features a menu with the following options:

- Current mood: Willful
- Skills
- Mood
- Outfit
- Classes
- Log
- Menu

A circular clock icon labeled "Week 7" is also visible.



Ren'Py is powerful

Long Live the Queen



Credit: Hanako Games

Ren'Py is powerful

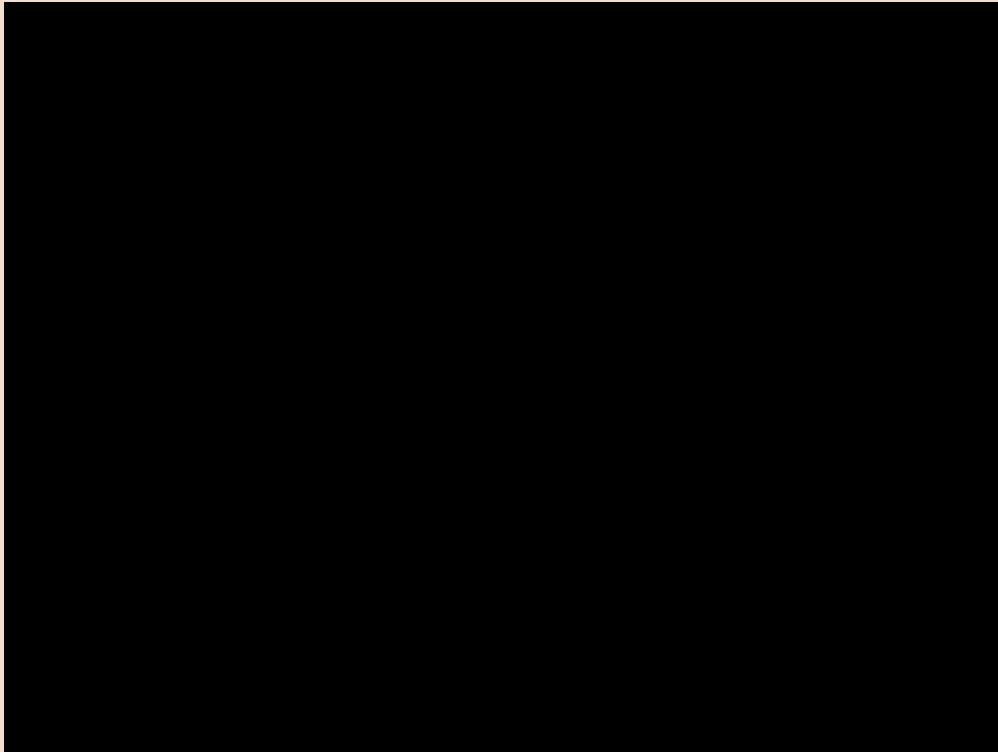


Highway Blossoms

- Ren'Py 3D

Credit: Studio Élan

Ren'Py is flexible



Video:
npckc - a hero and a garden



Ren'Py is flexible



Ren'Py is flexible

```
import random
import time

class MenuTimer(object):
    start_time = 0.0

    def duration(self):
        return renpy.get_game_runtime() - self.start_time

    @property
    def verbose(self):
        if renpy.in_rollback():
            return "If only I could turn back time?"
        else:

            d = self.duration()
            return "{} It took me {:.02f} seconds. {}".format(
                random.choice([
                    "Hmm.", "Interesting...", "Woah.", "Wonderful.",
                    "Strange.", "Huh." ] ),
```



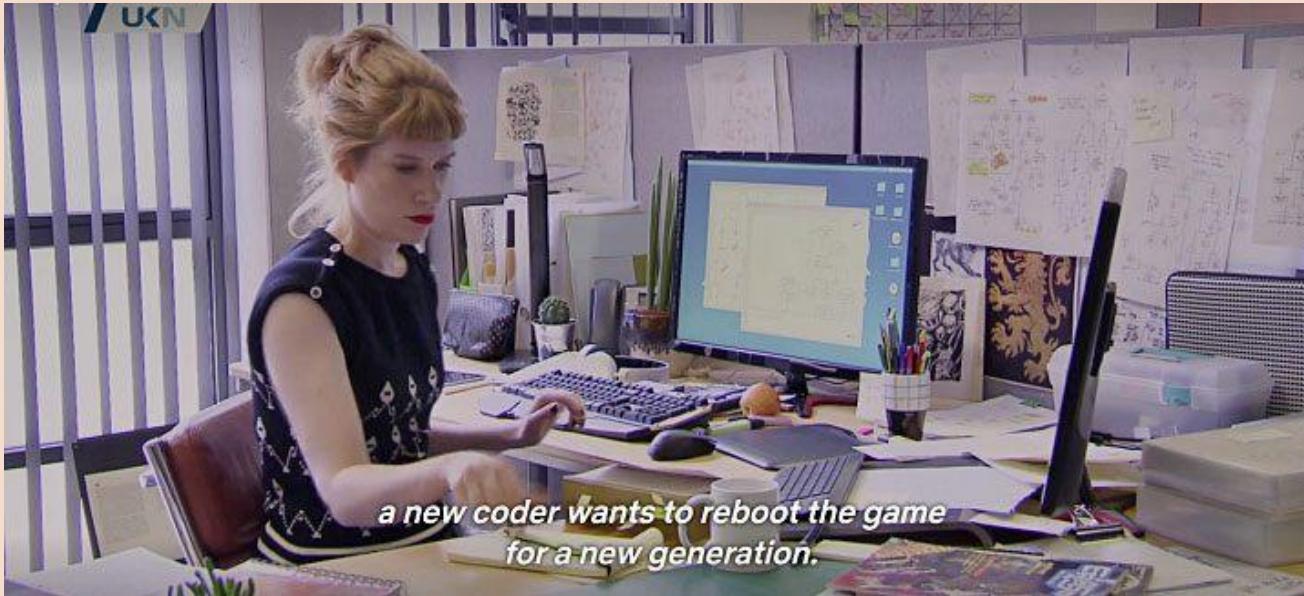
Implement timer of how long player took to make decisions

Generates dialogue by randomly selecting and combining phrases

Ren'Py is flexible



Ren'Py is flexible



You could easily remake Netflix's Bandersnatch in Ren'Py.

(Its creator used Twine, a popular tool in the VN community, to code the script)

Your imagination's the limit with Ren'Py

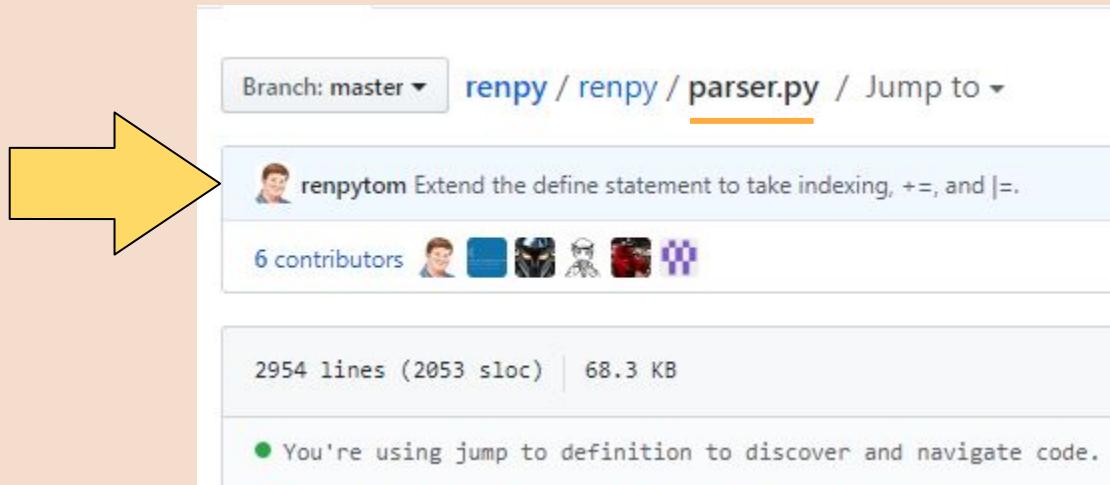
“I can't make a high production quality visual novel!”

Low budget dev
+ Ren'Py



You only have to learn Ren'Py once

- New programmer friendly
- Flexible for seasoned devs
- Thank you RenPyTom, your vision did come true





A Summer With The Shiba Inu



Now go make your story-driven game!



Contact me



@quill_studios



Susan Shu Chang



A Summer With The
Shiba Inu

