

Article on random numbers and pi algorithm

The history of programming and digital communication security, games and website security, as well as blockchain technology, have always been related to random numbers.

In this article, I will mention the way I have borrowed from nature. The magic number of pi.

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Reference:

<https://github.com/mosi-arch/documents/blob/main/safe-unique-random-number.md>

Safe random number by using PI magical number:

Imagine the infinite number have many positions not-iterate. How to use this number for Generating random numbers?

Guess the number position, then pick the number on that position.

Example: number 1

first position in array 3.1415.... is 0 after the .(digits)

next position of 1 is 2

next position is 36

and next is 39

So we have(generated) a random number by position of number "1", and never iterating the random number, these unique generated numbers...

Pi = 3.1415926535 8979323846 2643383279 5028841971 6939937510 5820974944
5923078164 0628620899 8628034825 3421170679 ...

This equation always is : $O(\log n)$

Now more complex equation:

Imagine you choosing the number "1"

Position is 0, $1+0 = 1$

Next search for 1, position is 2, so $1+2=3$

Now searching for 3 from the first position, is 8 positions. $3+8 = 11$, 11 is $1+1=2$

Now search for next position after the position generated by 3 (is 11), so there is two way:

A. $11 + 2 = 13$, we search next position from 13 and the number is 9

B. or position 11 ($1+1=2$) search for next 2 from the position 11, we founded number is position 15 (number 2)

Now we can make our algorithm for searching and find the next random number.

At the end we have the unique pattern for generating magic numbers.

Only thing you need to create more complex equation is:

Shuffle some random, choose 1 of them by the basic pattern and reveal the unique one of them !

Example: we generate 3 positions of number 2, 6 & 4. then choose position 0 || 1 || 2 for these 3 positions and reveal the current position of that.

Example pseudo code:

```
input from the pi = 2,6,4
2 = position x
6 = position y
4 = position z
R = [x,y,z]
A = random(R)
// reveal A (example is x, position 0, value of real position is 5)
output: "position 0 is 2 = x =>" random number is 5
```

Behind history of this code

I make this pattern and used this pattern many years ago in a lottery/bet platform used #erlang and #python, but I made a unique algorithm to use.

I just revealed this pattern for fun in the github community of programmers.

Enjoy it! and remember to give me my "nobel prize" :)

An advice to the next generation of programmers:

AI never can make the new creative algorithms from real nature. Looking around the world, like earth & tree, stars and oceans. You can find a chaos algorithm of fractals and Pi numbers. AI never can experience this world like us! So be yourself and grow...

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