➢ ASSUMPTIONS AND DESCRIPTION

- I was having resolution issues when I was attempting to fill circles in square hence, I took the dimension as 1920*1080 which is the standard size.
- In the algorithm I am trying to fit maximum no of randomly sized circles to a box of dimensions mentioned in the above point.
- In the algorithm I am brute forcing through the list of circles (which is getting appended in the iterations) and increasing size of active circles (I called them active when their size can be increased) till it can't be increased further i.e they collide.
- Id has been used to avoid the reiterations.
- The program uses the max the no of space finding attempts to come to end. I have used the values of variables such as gap, max_find_space_attempts and etc. and assigned them values by running the program about 10 times and checking for which of these values I will get minimal void space and optimal percentage space covered.
- Distribution of particles hasn't been taken Gaussian as I have run two nested infinite loops (they will break according to the condition) and I was not getting how to include all the particles from the list of diameters generated from normal distribution, when I tried doing so, I received errors and got output as 0.

Respected sir, this is obviously not the exact solution that you wanted but I this is what I was able to learn and apply to my best in the given time. I humbly request you to once see the pdf of algorithm, Collab notebook or the code as I have commented out the things which would make the algorithm clearer.