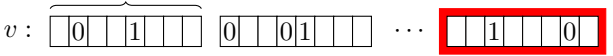
Bucketing: expected #neighbors in a bucket $= \Theta(1)$ expected, $\leq \mathcal{O}(\log n)$ w.h.p. $\Rightarrow$ #neighbors $\approx$ #buckets



Algorithm:

Step 1 pick a uniform random bucket
"fill" this bucket if needed

Step 2 pick a uniform random neighbor u

→ **return** or **reject**

Step 3 return u with probability $\frac{\#\text{neighbors in the bucket}}{\mathcal{O}(\log n)}$

otherwise, try again