Derandomizing with PRG

- Indyk '00 showed a black-box way to decrease memory for such a construction using PRGs for small space algorithms

- Consider the **one-pass** algorithm parameterized by x which takes as input a random string with n blocks

- Initialize sk $\leftarrow 0$

- Use r_i to generate S_{*i}

- Update sk $\leftharpoondown$ sk $+ x_i \cdot S_{*i}$

r_1	r_2							r_n

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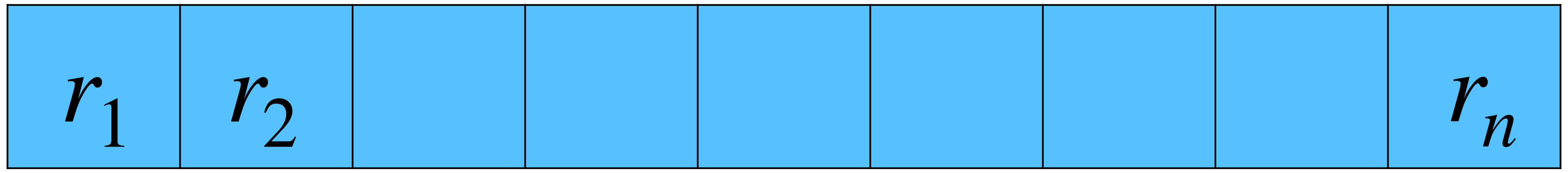

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Small Space Algorithm