The two persons will be in the same place if and only if they take the same number of times in their N chances, to move right. The probability that they each move to the right exactly K times is given by:

$$\left({}^{N}C_{K}\, 2^{-N}\right)^2$$

Now we sum this from $K = 0$ to N.

$$P = \sum_{K=0}^{N} \left({}^{N}C_{K}\, 2^{-N}\right)^2$$

$$= \frac{\sum_{K=0}^{N} \left({}^{N}C_{K}\right)^2}{2^{2N}} = \frac{{}^{2N}C_{N}}{2^{2N}}$$