#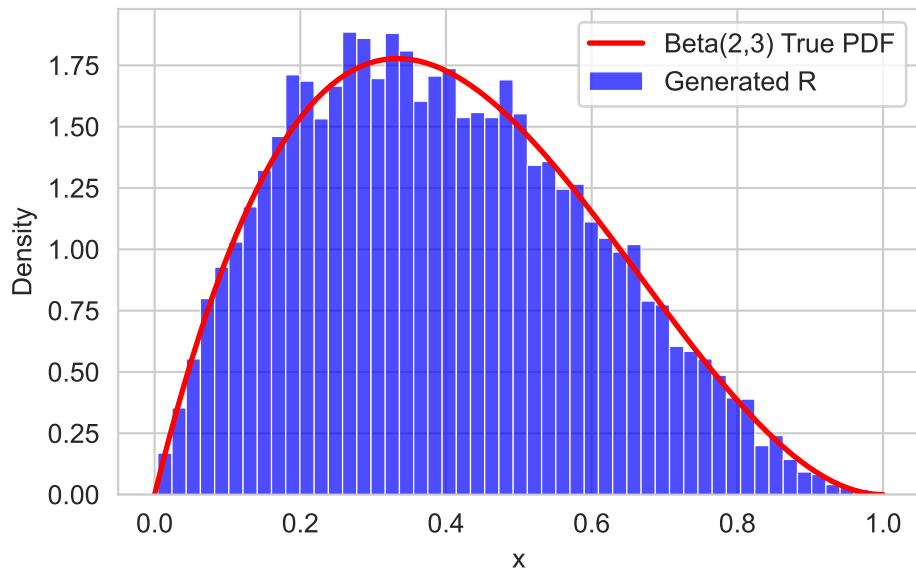 Exercise 2.1: $X_1 \sim \text{Gamma}(a, 1), X_2 \sim \text{Gamma}(b, 1) \rightarrow R = \frac{X_1}{X_1 + X_2} \sim \text{Beta}(a, b)$ for 10000 samples



$R = X_1/(X_1 + X_2) \sim \text{Beta}(2,3)$ — Beta(2,3) True PDF, Generated R

$S = X_1 + X_2 \sim \text{Gamma}(5,1)$ — Gamma(5,1) True PDF, Generated S