

SHA-256 Avalanche Effect

Tiny input change → Drastically different output

Input 1:

"Bitcoin"

Hash 1:

b4056df6691f8dc72e56302ddad345d6...

Input 2:

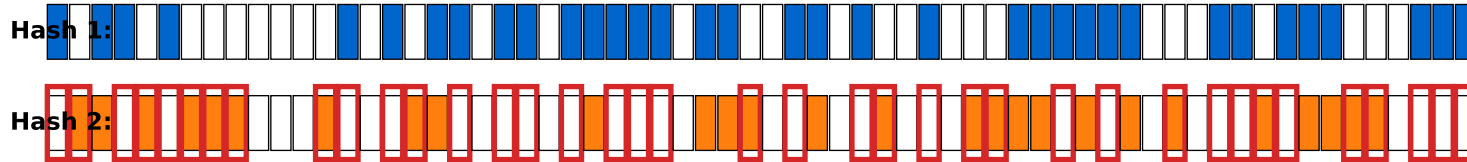
"bitcoin"

Hash 2:

6b88c087247aa2f07ee1c5956b8e1a9f...

← Only 1 char different!

Binary Bit Comparison (first 64 bits shown)



Bit Differences: 138 out of 256 bits (53.9%)
Red boxes show differing bits

The Avalanche Effect ensures that even the smallest change in input produces a completely different, unpredictable hash output.