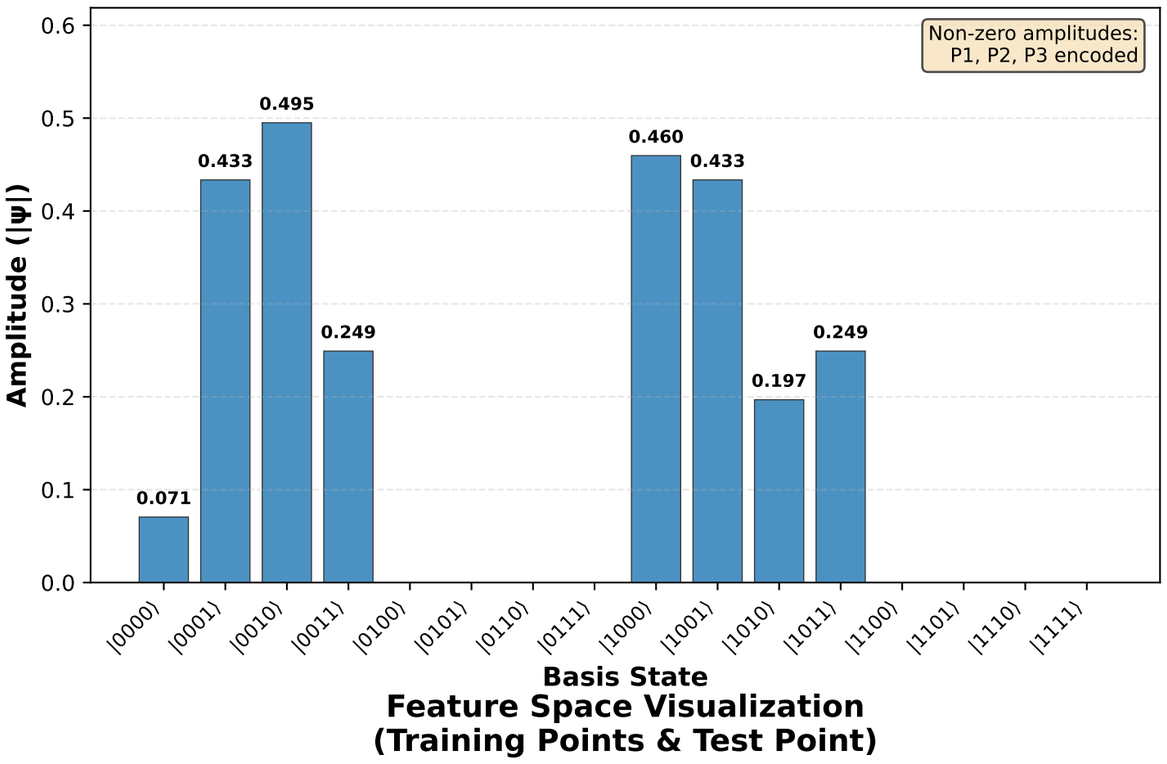
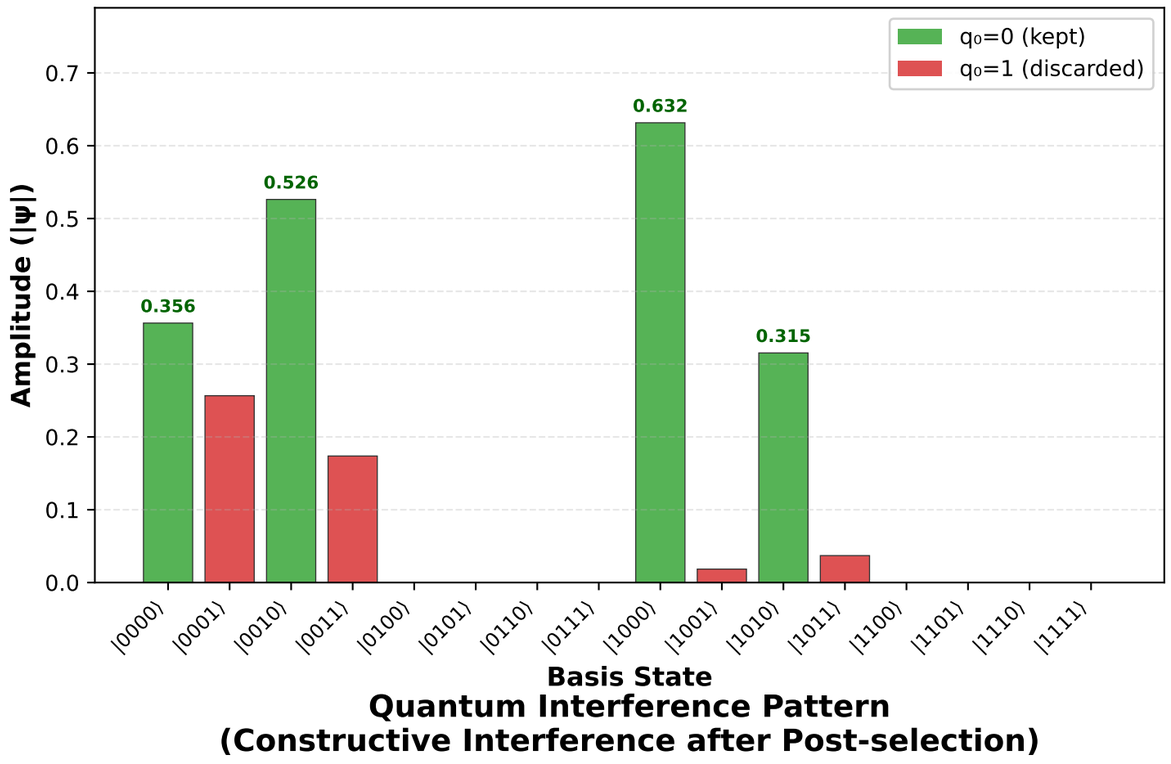
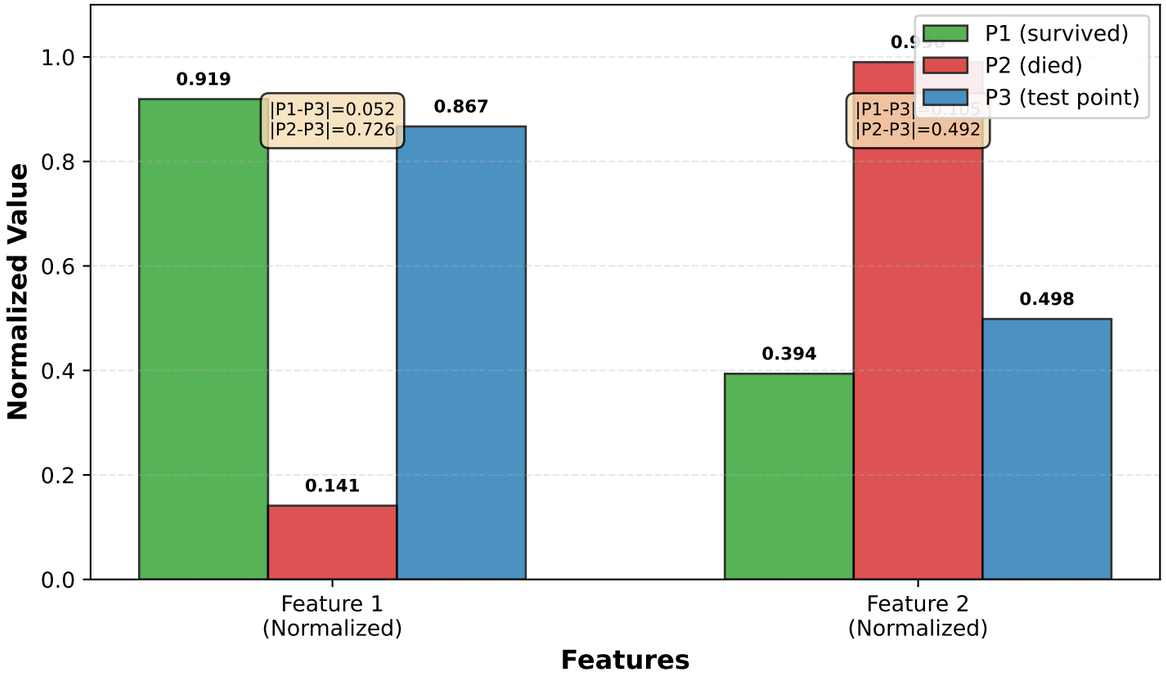
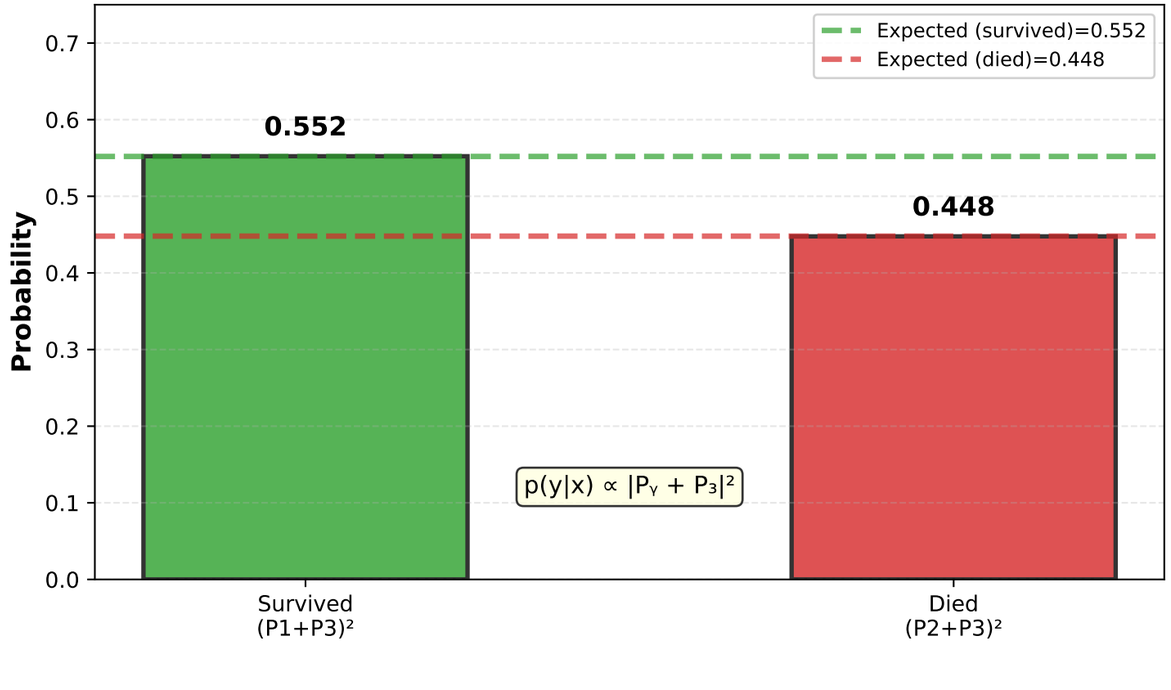

Statevector BEFORE Hadamard Gate
(After Amplitude Encoding)
Non-zero amplitudes:
P1, P2, P3 encoded
Amplitude (|ψ|)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.071
0.433
0.495
0.249
0.460
0.433
0.197
0.249
|0000⟩
|0001⟩
|0010⟩
|0011⟩
|0100⟩
|0101⟩
|0110⟩
|0111⟩
|1000⟩
|1001⟩
|1010⟩
|1011⟩
|1100⟩
|1101⟩
|1110⟩
|1111⟩
Basis State


Statevector AFTER Hadamard Gate
(Before Measurement)
q₀=0 (kept)
q₀=1 (discarded)
Amplitude (|ψ|)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.356
0.526
0.632
0.315
|0000⟩
|0001⟩
|0010⟩
|0011⟩
|0100⟩
|0101⟩
|0110⟩
|0111⟩
|1000⟩
|1001⟩
|1010⟩
|1011⟩
|1100⟩
|1101⟩
|1110⟩
|1111⟩
Basis State


Feature Space Visualization
(Training Points & Test Point)
P1 (survived)
P2 (died)
P3 (test point)
|P1-P3|=0.052
|P2-P3|=0.726
|P1-P3|=0.492
|P2-P3|=0.492
Normalized Value
0.0
0.2
0.4
0.6
0.8
1.0
0.919
0.141
0.867
0.394
0.498
Feature 1
(Normalized)
Feature 2
(Normalized)
Features


Quantum Interference Pattern
(Constructive Interference after Post-selection)
Expected (survived)=0.552
Expected (died)=0.448
Probability
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.552
0.448
p(y|x) ∝ |Pᵧ + P₃|²
Survived
(P1+P3)²
Died
(P2+P3)²