

Bonus Task: Quantum Computing Simulation

Quantum computing offers **parallelism and exponential speedups** that can revolutionize AI. Using IBM Quantum Experience, we can design a simple quantum circuit that performs a basic computation (e.g., superposition + measurement).

In **drug discovery**, quantum AI could simulate molecular interactions much faster than classical computers. This reduces the time needed to test potential compounds, accelerating the development of life-saving medicines.

Thus, quantum–AI integration could **redefine industries like healthcare, logistics, and climate modelling**.