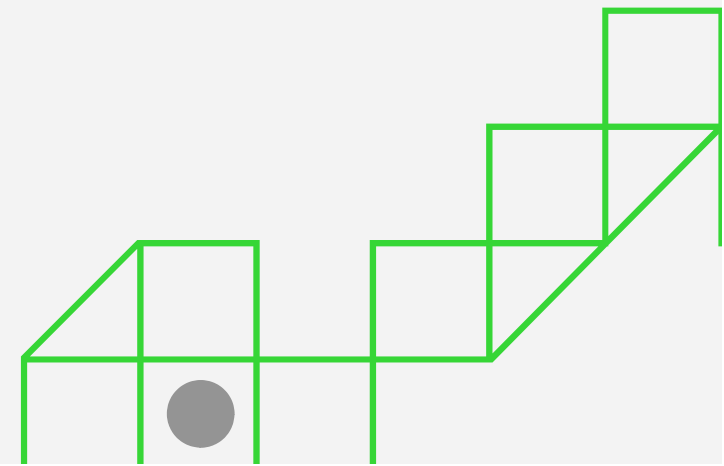

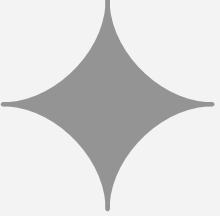





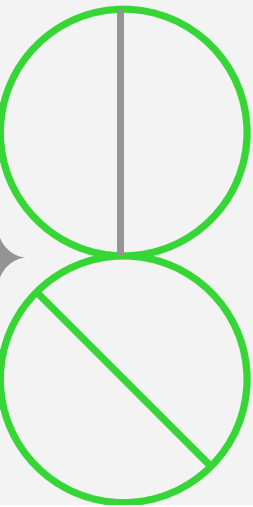
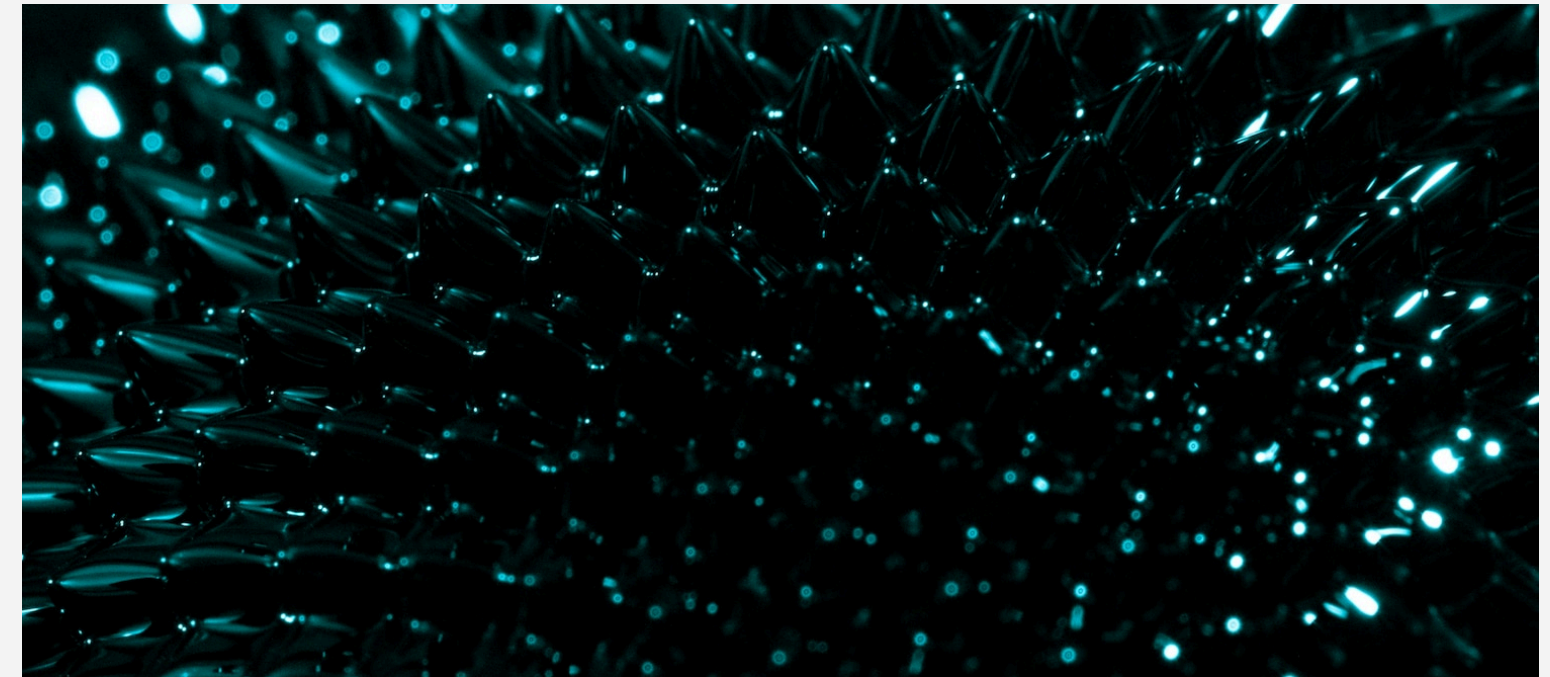
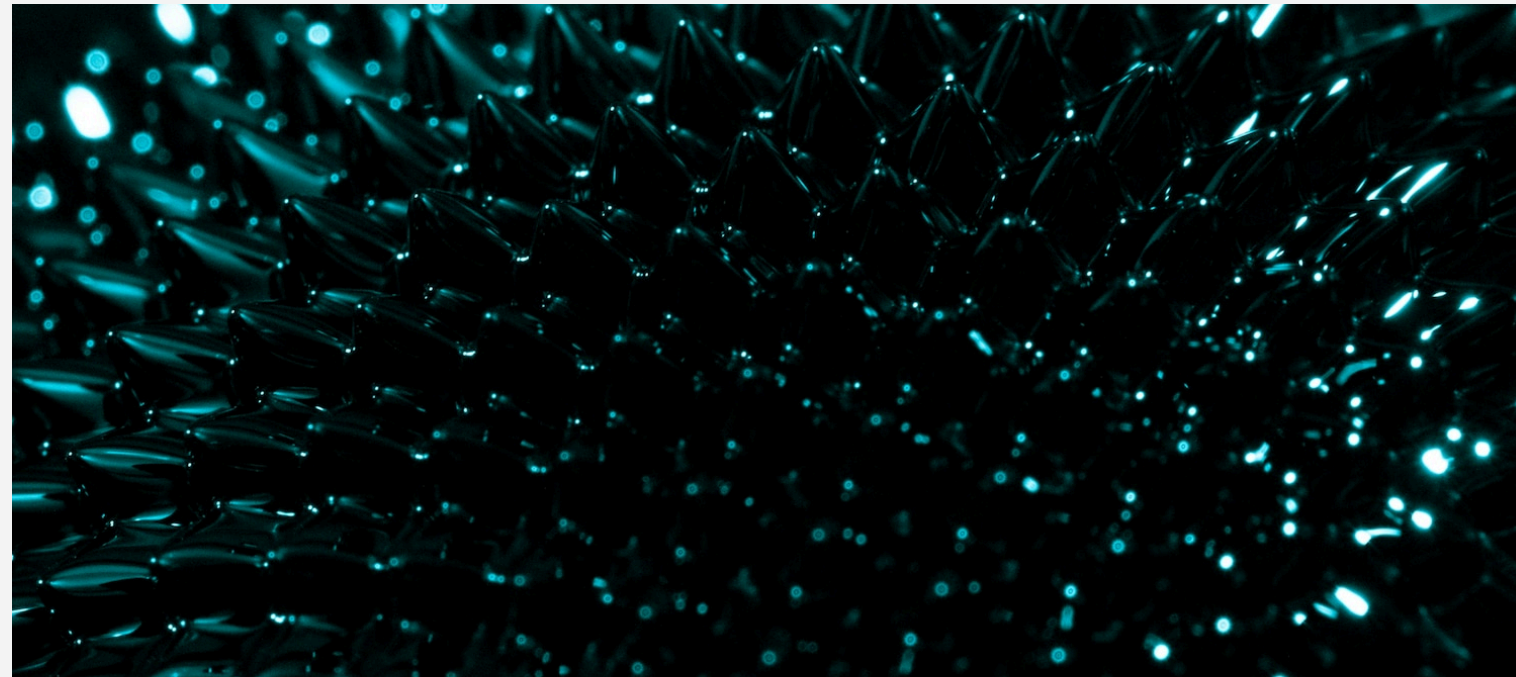
Quantum Computing: Paving the Way for Future Innovations

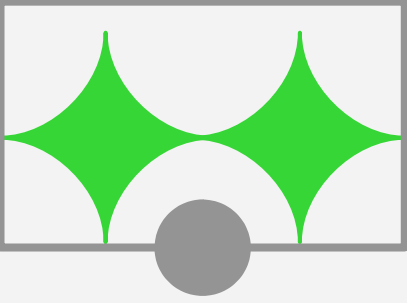




INTRODUCTION TO QUANTUM COMPUTING

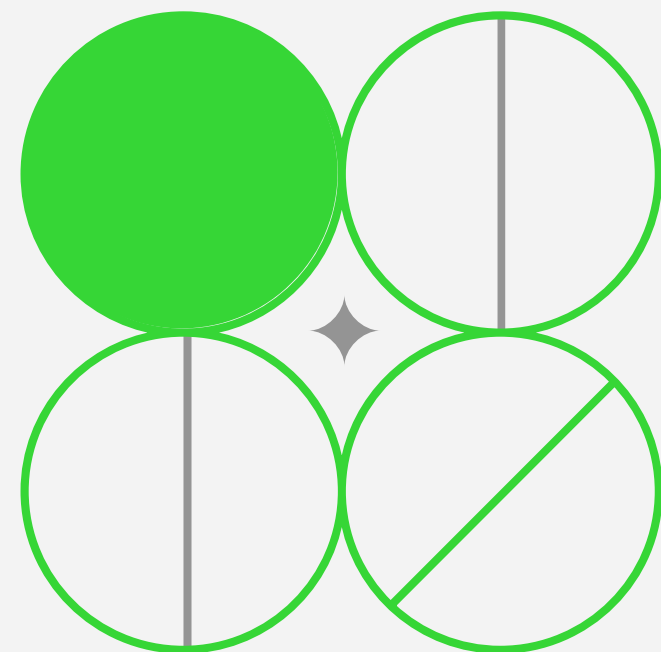
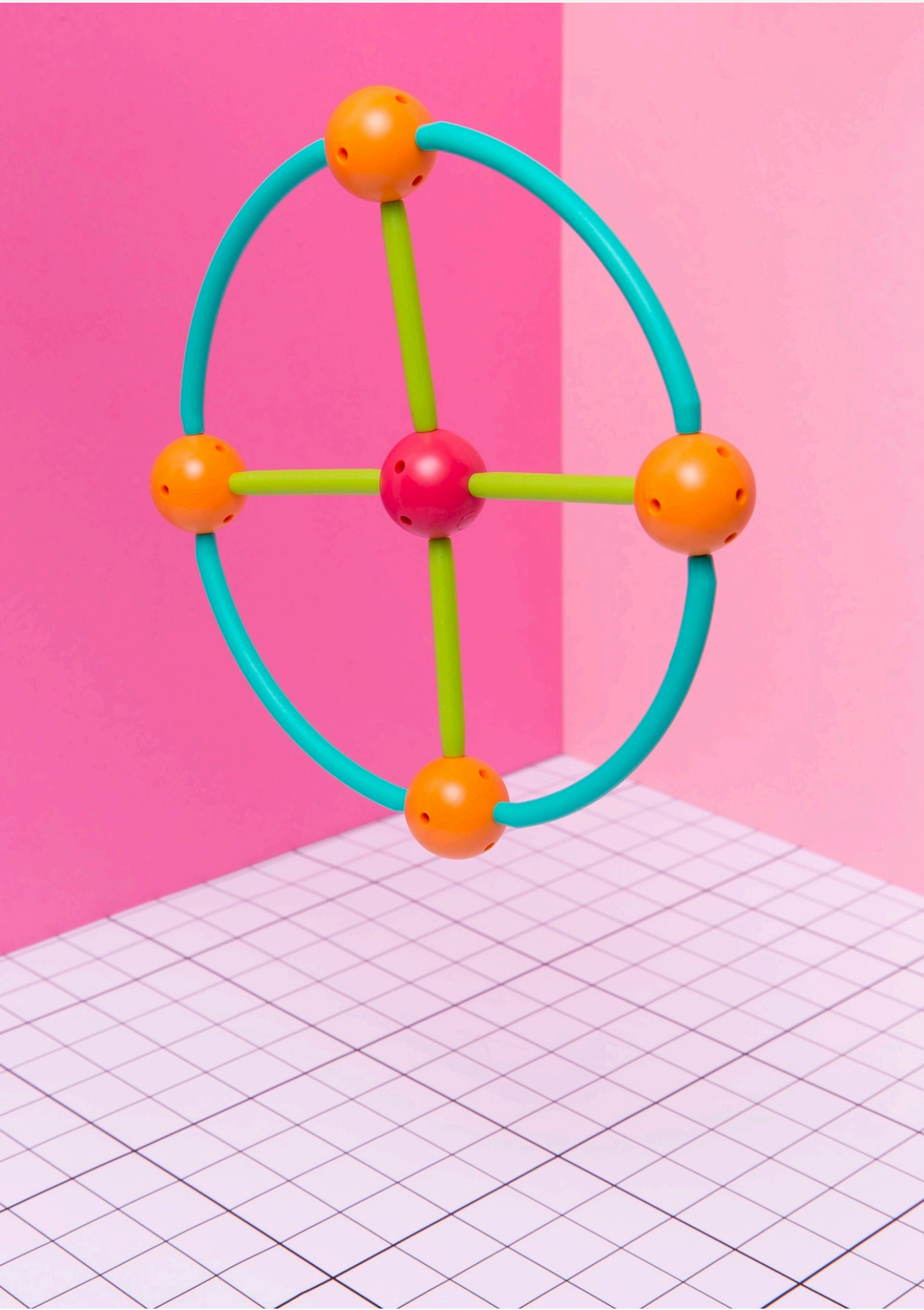
Quantum computing represents a **revolutionary** shift in computational power, leveraging the principles of **quantum mechanics**. This technology enables faster and more efficient processing, paving the way for **innovations** across various industries. Understanding its potential is crucial for future advancements.

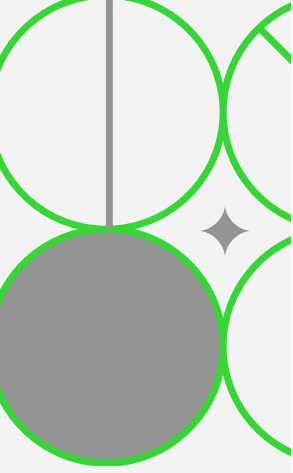




What is Quantum Computing?

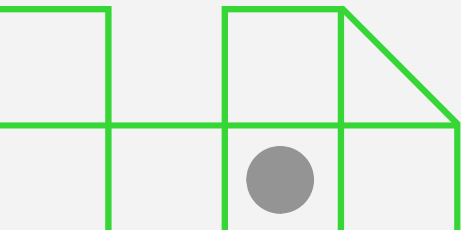
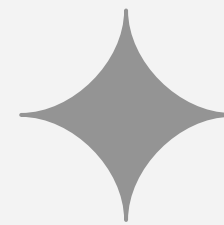
At its core, **quantum computing** uses qubits, which can exist in multiple states simultaneously. This phenomenon, known as **superposition**, allows quantum computers to perform complex calculations much faster than traditional computers. It opens up new possibilities for solving intricate problems.





Key Principles of Quantum Mechanics

The two main principles of quantum mechanics are **superposition** and **entanglement**. Superposition allows qubits to represent multiple values at once, while entanglement creates a link between qubits, enabling them to work in unison. These principles are fundamental to quantum computing's power.



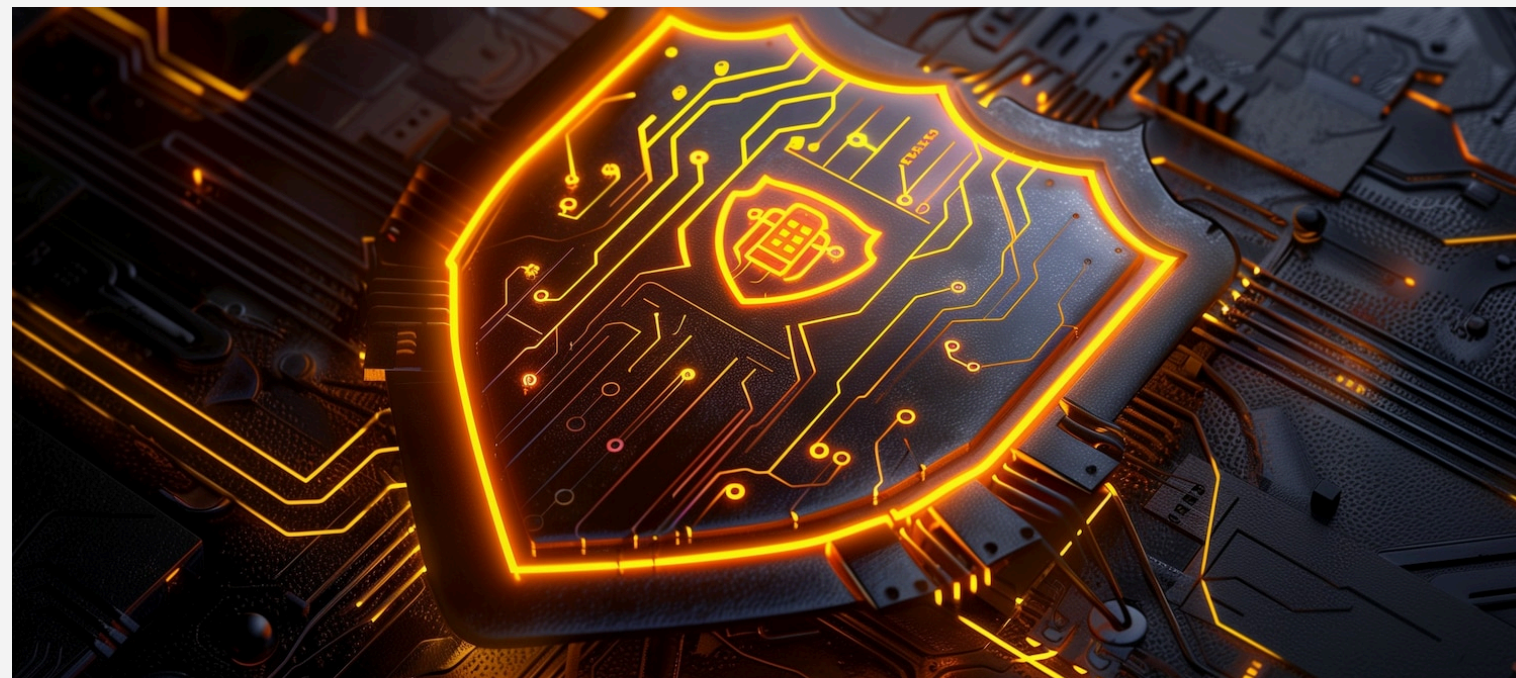
APPLICATIONS IN HEALTHCARE

Quantum computing has the potential to **transform healthcare** by accelerating drug discovery and personalized medicine. It can analyze complex biological data more efficiently, leading to significant advancements in **treatment** and disease prevention strategies.



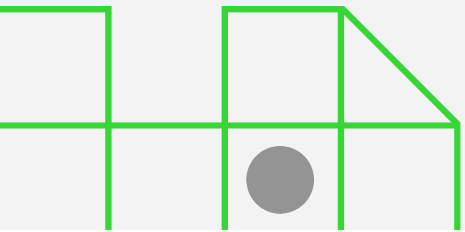
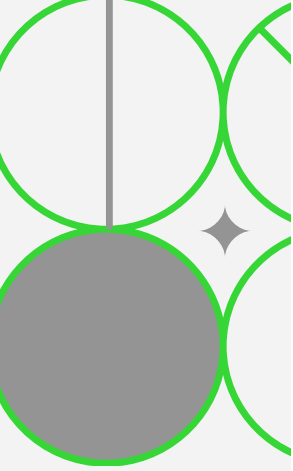
IMPACT ON CRYPTOGRAPHY

Quantum computing poses both a threat and an opportunity for **cryptography**. While it can break traditional encryption methods, it also enables the development of **quantum-safe** algorithms. This dual nature will reshape the future of data security.



Advancements in Artificial Intelligence

The integration of quantum computing with **artificial intelligence** can enhance machine learning algorithms, allowing for faster data processing and improved decision-making. This synergy may lead to breakthroughs in **AI** applications across various sectors.





Challenges Ahead

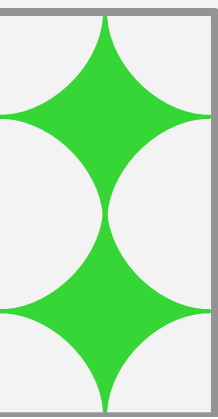
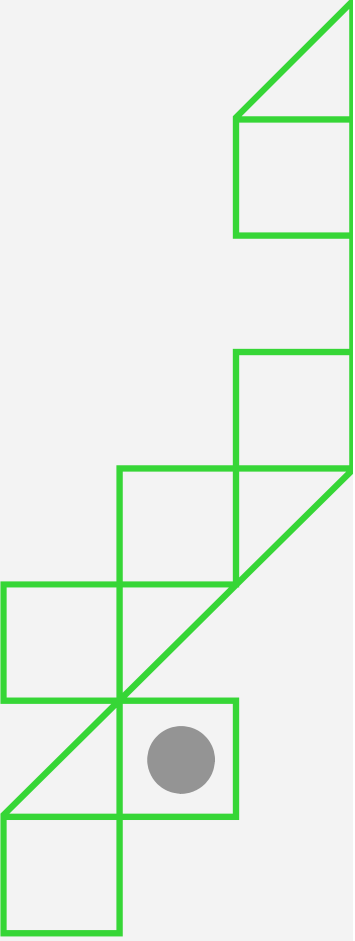
Despite its promise, quantum computing faces significant **challenges** such as error rates, qubit coherence, and the need for advanced algorithms. Addressing these issues is essential for realizing the full potential of this groundbreaking technology.

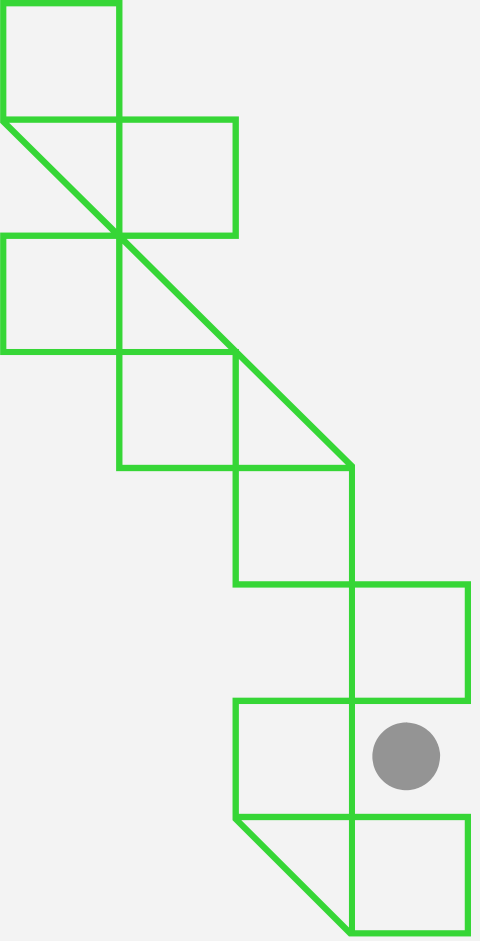




CONCLUSION: THE FUTURE OF INNOVATION

Quantum computing is poised to be a **game-changer** in technology and innovation. As we continue to explore its capabilities, it will undoubtedly pave the way for **transformative** solutions that can address complex global challenges in the future.





Thanks!

ANY QUESTIONS?

youremail@freepik.com

+91 620 421 838

yourwebsite.com

