VICTOR CHEUNG

**Department:** Systems Design Engineering  
**Program:** PhD

**Project funded by:** University of Waterloo Institute for Quantum Computing (IQC) and The Games Institute

**Project co-researchers:** Dr. James Wallace, School of Public Health and Health Systems (Faculty Supervisor); Jagger Nast, Programmer; Mike Brown, Programmer; Keith McLean, Artist

**Quantum Cats** shares the wonder of the quantum world in a new and unique way — through a game. In partnership with IQC, the University of Waterloo Games Institute has created a game that highlights a few of the quantum behaviours that Einstein called ‘weird’ and ‘spooky’.

*Quantum Cats* is an *Angry Birds*-like game that features four cats, who are launched using an electromagnetic catapult across levels to rescue the world’s kittens (who are coincidentally trapped in nearby boxes). Each cat’s game mechanics correspond to different quantum properties such as Uncertainty, Quantum Tunnelling, and Superposition. The game aims to make quantum mechanics more accessible to the general public, spark interest in quantum computing, and foster public engagement with quantum computing research.

**Interesting fact:** *Quantum Cats* is available as a free download in the Google Play Store and the iOS App Store.