

## The Journey : Crafting a Photonic Quantum Computer from the Ground Up

### Abstract :

Building a quantum computer from scratch is not just a science and technology challenge — it's a systems and engineering journey too. In this talk, I will walk through the path we've taken at Quanflunce to design and build a continuous-variable photonic quantum computer, starting from fundamental principles. I'll present the architecture, explain how each component fits into the broader quantum pipeline, and share our progress on all fronts — including photonic integrated circuits, control electronics, and the design of scalable optical hardware. We will discuss our collaborations and the people at the heart of the story. Our story is one of innovative technology, iterative engineering, hard-won lessons, and optimism — and we hope it adds to the growing momentum of India's quantum hardware ecosystem.