

# Nitin Jha

## Curriculum Vitae

Kennesaw State University  
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🌐 <https://ninjha252.github.io>

### Research Interests

- 1 Quantum Communication
- 2 Quantum Key Distribution
- 3 Quantum Augmented Networks
- 4 Enhancing User Privacy using AI techniques

### Education

- 2023- **Ph.D. Computer Science**, Kennesaw State University, Marietta, USA, *Working with*  
Current *Quantum Networks and Communication*  
Current GPA: 3.89/4.00
- 2020-2023 **B.Sc. (Hons.)**, Ashoka University, Sonapat, India, *Major in Physics*  
Graduated with latin honors: *Cum Laude*. GPA 3.69/4.00

### Research Experience

- 2023- **Graduate Research Assistant**, Kennesaw State University, Marietta, USA, *Quantum*  
Current *networks and Communication*  
Conducting theoretical and simulation-based studies for different aspects of Quantum networks and communication.
- 2022 **Research Assistant**, Ashoka University, Sonapat, India, *Simulating Micromagnetic Systems*  
Using OOMMF or MuMax3 to simulate the behavior of permalloy in varying magnetic fields.

### Publications

#### Journal-Published

- 2024 Jha, N., Parakh, A., & Subramaniam, M. (2024). Joint encryption and error correction for secure quantum communication. *Scientific Reports*, 14(1), 24542.

#### Journal-Under Review

- 2024 Jha, N., Parakh, A., & Subramaniam, M. (2024). A Review of Attacks and Security of Quantum Networks. (**Under Review** at *IEEE Communications Surveys and Tutorials*.)
- 2024 Jha, N., Parakh, A., & Subramaniam, M. (2024). Multi-photon QKD for Practical Quantum Networks. (**Under Review** at *Infocommunications Journal*.)

#### Conference

- 2025 Jha, N., Parakh, A., & Subramaniam, M. (**To Appear**). Effect of noise and topologies on multi-photon quantum protocols. In *Quantum computing, communication, and simulation IV*. SPIE 2025.
- 2024 Jha, N., Parakh, A., & Subramaniam, M. (2024, September). A ML Based Approach to Quantum Augmented HTTP Protocol. In *2024 IEEE International Conference on Quantum Computing and Engineering (QCE)* (Vol. 2, pp. 591-592). IEEE. (**Poster**)
- 2024 Jha, N., Parakh, A., & Subramaniam, M. (2024, March). Effect of noise and topologies on multi-photon quantum protocols. In *Quantum computing, communication, and simulation IV* (Vol. 12911, pp. 148-161). SPIE.

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## Skills

### Technical Skills

Languages Python, MATLAB, LaTeX  
Frameworks IBM Qiskit, PennyLane (beginner)

### Personal Skills

Languages English, Hindi

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## Services & Responsibilities

Reviewer **IEEE Transactions on Mobile Computing**  
Reviewer **Scientific Reports**  
Reviewer **IEEE Access**  
Reviewer **Advanced Quantum Technologies (QUTE)**