

HARSHIT GARG

Computer Science Undergrad at BITS Pilani

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📍 Delhi, India

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EXPERIENCE

Intern at UST Global

Quantum Distribution Networks

📅 May 2020 – Jun 2020

📍 Trivandrum

- Worked with a team of 4 to study "quantum-safe" protocols including liboqs for openssl, etc., and Hybrid key-exchange in TLS1.3 and prepared a report.
- Implemented Quantum Image Encryption for medical imagery in qiskit.

EDUCATION

B.E. (Hons.) in Computer Science

BITS Pilani, Pilani Campus

📅 2018 – 2022 (*Expected*)

GPA 8.18/10 (*3 semesters*)

PROJECTS

Quantum Image Encryption

UST Global, Trivandrum

📅 May 2020 – Jun 2020

🐙 Github

- Implemented a 2017 paper to demonstrate encryption of medical imagery using quantum computers.
- Implemented NEQR, Image Scrambling, and 2-D logistic sine-map.
- Prototype written in Qiskit

Sustainable network model for information communication

Prof. Amit Dua, CSIS BITS Pilani

📅 May 2020 – Present

- Developing a model for machine-to-machine communications using energy harvesting techniques, and edge computing, with machine learning to optimize the energy losses.
- Currently reviewing literature relating use of edge computing and energy harvesting for IoT devices.

AFORT - Attack Tree Repository

Prof. Rajesh Kumar, CSIS BITS Pilani

📅 April 2020 – May 2020

🐙 harshitgarg.in/afort

- Repository of attack trees and attack defense trees.
- Developed a website with PythonAnywhere from scratch using Flask, MySQL, Bootstrap, and JS.
- Developed input for nested forms, parser for attack tree DFT files, and display relevant data

ABOUT ME

I like obsessing over how the internals of things work, whether it be a new feature in C++ or the physics of a quantum computer.

Intend to get a broad experience of different fields within CS.

SKILLS

Qiskit ● ● ● ● ●

C++ ● ● ● ● ●

Python ● ● ● ● ●

Q# ● ● ● ● ●

JavaScript ● ● ● ● ●

Haskell ● ● ● ● ●

COURSES

Linear Algebra

Machine Learning

Quantum Info & Comp

Data Struc & Algo

Natural Language Processing

CO-CURRICULARS

MATRIX- Literature and Cinema Society

Vice President

- A community of 30-35 film and literature enthusiasts (and geeks).
- Conducted directed discussions on philosophy, writing, art and current affairs, organised presentations and introductions of books, movies etc.

Srishtaara

Member

- Working with a team of 25 to establish India's first maker-space in a library.
- Responsible for editing videos for the club, and managing projects.