# Anubhav Srivastava

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#### EDUCATION

Indian Institute of Technology Hyderabad

M. Tech - Computer Science and Engineering; GPA: 8.92

Hyderabad, India January 2021 - ongoing

College of Engineering Roorkee

B. Tech - Computer Science and Engineering; Percentage: 74.14%

Roorkee, India August 2013 - July 2017

# RESEARCH EXPERIENCE

IIT Hyderabad

Hyderabad

Research Assistant (working with Dr. M.V. Panduranga Rao)

Jan 2021 - current

- Routing algorithms for Qauntum Networks: Path finding algorithms to distribute end to end entanglements between the requesting nodes
- Quantum Network Simulator: Modified an existing quantum network simulator called SeQUeNCe and added a functionality of Virtual Links to study their impact on average latency and fidelity
- Request scheduling in quantum networks: Request scheduling algorithms to maximize the number of demands completed and number of entanglements served
- Solving VRP using adiabteic quantum computing: Formulation of QUBO for different variants of the Vehicle Routing Problem and solving these on Dwave's quantum computer

#### Qulabs India Pvt. Ltd.

Hyderabad

Research Intern (in collaboration with IIT Hyderabad)

Jun 2021 - Aug 2021

• Quantum Networks Simulator: Extended upon the virtual link functionality and helped with the implementation of a greedy routing strategies in the simulator

#### Publications

- Anoop Pandey, Anubhav Srivastava, Shuhul Handoo, T. Bheemarjuna Reddy and MVPRao. Greedy
  Algorithms for Finding Entanglement Swap Paths in Quantum Networks. Submitted to
  ICDCN'23(under review)
- Surya Sai Teja Desu, Anubhav Srivastava and Mvprao. Model checking for entanglement swapping. Accepted at FORMATS'22
- Anubhav Srivastava, Devendra Mishra, Madhuri Annavazzala, Antony Franklin, Nixon Patel, M.V. Panduranga Rao. Short-cuts on quantum network simulators. In IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), 2021
- B. Anvesh, ABS Phaneendra, M. Sai Anuraag, J. Sai Nishith, K. Dhanush, Anubhav Srivastava, Devendra Mishra, Antony Franklin, Nixon Patel, M. V. Panduranga Rao. **Analyzing Quantum Network Routing Protocols through Time-Driven Simulations**. In IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), 2021

## Honors and Awards

- Awarded title of Intel Software Innovator May, 2019
- Second Runner's Up at TCS EngiNx Engineering Project Innovation Content September, 2018
- Runner's Up at Facebook Developers Circle Hackathon August, 2017

# Volunteer Experience

## Community Lead at Developer Student Clubs NSEC

Kolkata, India

Conducted online and offline technical & soft-skills training impacting over 3000 students.

Jan 2019 - Present

## Event Organizer at Google Developers Group Kolkata

Kolkata, India

Organized events, conducted workshops and delivered workshops reaching over 7000 developers. Jan 2018 - Present