# Rutvij Menavlikar

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# **EDUCATION**

## **IIIT HYDERABAD**

B.Tech and MS Dual Degree in Computer Science and Engineering

July 2019 - Present CGPA: 8.71/10

# LINKS

Github:// Rutvij-1 Codeforces:// menavlikar.rutvij

# **ACHIEVEMENTS**

- Won the Quantum Chemistry Challenge in Qhack 22 sponsored by Qunasys.
- Selected in IOITC (2017)
- Ranked #62 in the 2020 ICPC Asia Gwalior-Pune Regional Contest.
- Top 10 in Uber Hacktag 2.0
- Ranked #306 in Google Kickstart 2022 Round C.

# TECHNICAL SKILLS

## LANGUAGES & FRAMEWORKS

Day-to-Day:

Python • C/C++ • JavaScript • React Familiar:

LaTeX • HTML/CSS • Qiskit • React Native • Bash • Solidity • Racket • Mapbox JS

#### **MISCELLANEOUS**

MySQL • MongoDB • Git

# **RELEVANT COURSES**

Machine Data and Learning, Distributing Trust and Blockchain, Statistical Methods of Artifical Intelligence,

Operating Systems and Networking, Software Systems, Data and Applications, Quantum Algorithms

# MAJOR PROJECTS

#### ML RESEARCH | NETCITY

• Finding methods to predict the likelihood of failure of a pipeline using spatial data of the pipes, and surrounding factors for a city.

# QHACK 22 | PAULIZEE

- Simulated the Hamiltonian of the Heisenberg Spin Chain model using topologically optimized Trotterisation.
- Won the Quantum Chemistry Challenge in Qhack 22 for this project.

## DAPP MARKET | AUCTION-HOUSE

- A webapp for an online Auction House with proper payment and delivery system.
- Includes integration with Solidity back-end and truffle-react.

## FOOD DELIVERY APP | ASENIORISASKING

• An application for food delivery by students and for students developed using React JS, Flask, Redis, Docker and REST APIs.

## LINUX SHELL | SEASHELL

- A Bash-like shell in C using Linux system calls.
- Included piping, redirection and signal handling.

# **EXPERIENCE**

# **SMARTTERRA** | ML INTERN

June 2021 - July 2021

- Worked on project Netcity, to build a ML model that could predict leakage in a pipeline given relevant data.
- Worked with jupyter notebooks, geopandas library, React native, Mapbox JS and Plotly JS.

## **QUANTUM WALKS | RESEARCH**

June 2021 - Present

• Currently working on bounding mixing time of quantum walks on a physically realizable graph under Prof. Shantanav Chakraborty in CQST, IIIT Hyderabad.

# POSITION OF RESPONSIBILITY

## **IIIT PROGRAMMING CLUB** | MODERATOR

July 2021 - Present

• Co-heading the club and in-charge of hosting and organizing events like Fools Programming and Decode. Responsible for club operations.

# **TEACHING ASSISTANT**

- Discrete Structures: December 2021 March 2022
- Data Structures and Algorithms: March 2022 Present