GANESH VANAHALLI

(+91)8762863651⋄ ganeshdvanahalli@gmail.com

EDUCATION

International Institute of Information Technology, Hyderabad 2016 - 2020
Bachelor of Technology (Honours) in Computer Science and Engineering (CSE). *CGPA: 8.37*
Narayana Junior College, Hyderabad 2014 - 2016
Senior Secondary. *Percentage: 98.2*

PUBLICATIONS

BitcoinF: Achieving Fairness For Bitcoin In Transaction Fee Only Model *(AAMAS-2020)*
Accepted to International Conference on Autonomous Agents and Multiagent Systems 2020 as an extended abstract.

RESEARCH PROJECTS

Increasing the security of payment channel networks against denial-of-service attacks and failures *(Monsoon 2020)*
As a remote Research Assistant, I am currently working on finding solutions to varied problems that payment channel networks face.
Guide: Dr. Stefanie Roos, Distributed Systems Delft University of Technology.

Stabilizing Bitcoin in Transaction Fee Model *(Monsoon 2019)*
Worked on finding a protocol that efficiently stabilizes Bitcoin cryptocurrency in transaction fee model.
Guide: Dr. Sujit Gujar, Machine Learning Lab IIIT-H.

Quantum Query Complexity *(Summer 2019)*
Studied the approximate degree of functions and how to find lower bounds of them using dual polynomials, specifically the Dual Block Method. Currently working on finding the lower bound of OR block composed with general function using dual polynomials.
Guide: Dr. Rajat Mittal, Indian Institute of Technology Kanpur.

Broadcasting of Quantum Correlations in Network Theory setting *(Summer 2019)*
Worked on optimizing the range of parameter values for broadcasting of Quantum Correlations using Network Theory Protocols and visited Zhejiang University to attend a summer school by Prof. Lincoln D Carr on complexity theory.
Guide: Dr. Indranil Chakrabarty, CSTAR IIIT-H and Prof. Junde Wu, Mathematics Department Zhejiang University, Hangzhou, China.

School on Foundations of Quantum Information *(summer 2018)*
Topics included basics of Quantum Information Theory, Quantum Foundation, Quantum Key Generation and various Cryptographic primitives.
Guide: Prof. Guruprasad Kar, Physics and Applied Mathematics Unit, Indian Statistical Institute, Kolkata.

TEACHING ASSISTANTSHIPS

Mathematics-III Monsoon 2018
Linear Algebra Spring 2019
Linear Algebra Spring 2020

COURSE PROJECTS

Independent study in Quantum Mechanics *(Monsoon 2018)*
Independent study on Quantum Mechanics, temporal aspects in Quantum Mechanics and Perturbation Theory. Guide: Dr. Subhadip Mitra, IIIT-H.

Mobile Based Voting System *(Spring 2018)*
Lead a team consisting of 25 students, to develop a mobile based voting system as a modern solution for elections in developing countries like India. Project was a part of Engineering Systems course at IIIT-H.

SKILL SET

Programming	C, C++, Python, Matlab, Java
Graphics	OpenGL, WebGL
Web and App Development	HTML/CSS, Javascript, AJAX, NodeJS, Flask, Ruby on Rails
Databases	MySQL, Sqlite
Blockchain programming	Solidity, Truffle, Decentralized app

COURSEWORK

Quantum Information and Computation, Algorithms, Distributing Trust and Blockchain, Principles of Information Security, Linear Algebra, Discrete Mathematics (Mathematics I), Probability Theory and Complex Analysis (Mathematics III), Optimization Methods, Distributed Systems, Data Structures, Formal Methods, Statistical Methods in AI, Artificial Intelligence, Digital Signal Analysis and Applications, Computer Programming, Computer System Organization, Operating Systems, Computer Networks, Database Systems, Engineering Systems.

ACADEMIC ACHIEVEMENTS

Dean's List (top 5% of the batch) and Dean's Merit List (top 20% of the batch) awarded for excellence in academics, *Monsoon 2018 and Spring 2019*

All India Rank 357 in JEE Mains (out of $>$ 1.2 million candidates), *2016*

All India Rank 8668 in JEE Advanced (out of $>$ 0.5 million candidates), *2016*