Isha Tarte

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EDUCATION	**B.Tech in Computer Science and Engineering, Senior Year**	Aug, 2014 - Present

National Institute of Technology Karnataka, Surathkal, India
- CGPA: **9.51**/10 (Dec 2016)

High School - St. Raphael's H.S. School (CBSE) - 97.2%   2012 - 2014
Secondary School - St. Raphael's H.S. School (CBSE) - CGPA: 10.0   2002 - 2012

EXPERIENCE   **Summer Research Intern, Tata Institute of Fundamental Research, Mumbai**   May - July, 2016
Worked on the game 'Public Goods in Networks', a network game where agents exert effort and have benefit and cost associated with it. The problem was modelled as a graph. Analyzed price of anarchy and price of stability for different cases. Also worked on equilibrium welfare, optimal welfare and minimum equilibrium welfare in specialized equilibrium and best response dynamics convergence of equilibrium.

Research Intern, Tata Institute of Fundamental Research, Mumbai   Dec, 2016
Worked on equlibrium of Atomic splittable routing game. The ASRG considered was one where each player can have different latency function on all the edges. Worked on the decision problem whether there exist an equilibrium where some player's cost is at least M, for some given value of M.

Web Developer, Discount to Students   Dec, 2015
Worked on the website D2S. Built an admin page where an admin once logged in can add a merchant, view the list of existing merechants and modify the details.
Web framework used: meteor

TECHNICAL
SKILLS
Languages - C, C++, PHP, HTML, CSS, Python
Databases - MySQL, MongoDB
Tools/Frameworks - Meteor, STL, LATEX, Mathematica, Multisim, Git

RELEVANT
COURSES
Data Structures and Algorithms, Operating Systems, Computer Graphics, Advanced Computer Networks, Databases, Graph Theory, Compiler Design, Distributed Computing, Number Theory and Cryptography, Computer Architecture, Software Engineering, Discrete Mathematics, Linear Algebra and Matrices

SELECTED
PROJECTS
All projects available on git : https://www.github.com/isha97
- **Implementation of REM in ns-3** : Random Exponential marking(REM) is an active queue management algorithm. Implemented REM model in traffic control layer of ns-3. Verified the model by writing test-suite. Also wrote the example program and documentation.

- **Damage Assessment using Satellite Images** : Worked on damage identification and assessment using post disaster satellite images of the affected areas. Used SLIC (Simple Linear Iterative Clustering) for image segmentation and textural features for image analysis and classifcation.

- **Election Algorithms** : Simulated Bully and Ring algorithm in distributed system using python. Also, implemented a heap based technique for leader election. Compared the number of messages passed in various algorithms with different intiator nodes.

- **Point to Multi-point FTP** - Implemented point-to-multipoint reliable UDP data transfer protocol using the Stop-and- Wait automatic repeat request (ARQ) scheme. Conducted experiments to evaluate the variation in time taken to send all the packets with different maximum segment size (MSS), number of hosts and loss probability.

- **Online Health Care Portal** : Developed a portal that connects patients to available doctors for online consultation and also allows doctors to send prescriptions. The portal has the facility of live-chat which allows patients to directly connect to doctors.

- **Secure Data Transmission** : Developed a portal to encrypt text files and images. Used Advanced Encryption Standard algorithm for encryption and socket programming in Java for file transmission.

ACHIEVEMENTS
AND AWARDS

- Secured runner-up position in Microsoft code fun do hackathon. Built an app for visually impaired.
- Presently ranked 3rd in Computer Science Department.
- Selected for Visiting Students' Research Programme, 2016.
- Selected for IAS Summer Research Fellowship, 2016.
- Qualified for award of scholarship for Higher Education (SHE) under Innovation in Science Pursuit for Inspired Research (INSPIRE).
- Got felicitated in writing by HRD minister of India, Mrs. Smriti Zubin Irani for exemplary performance in the 12th board examination.

EXTRA-CURRICULAR ACTIVITIES

- Executive member of IEEE NITK chapter.
- Executive member of Web Enthusiast's Club NITK.
- Volunteering for Avanti fellows. It is an NGO which helps to provide world-class Science education to low income high school students.
- Executive member of Computer Science Committee, Engineer (technical fest of NITK).

MORE

Please visit https://isha97.github.io