Bhavik Dhandhalya

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Education

Birla Institute of Technology & Science, Pilani, IND — Expected May 2020
- M.E. in Computer Science, GPA 0.00

Charusat University of Science & Technology, Changa, IND — May 2017
- B.Tech. in Computer Engineering, GPA 7.06
- Secured 3rd Rank in 8th Semester by scoring perfect 10.00.

Professional Experience

Charusat Space Research & Technology Center, Changa, IND
Research Intern — Jan 2017 – Apr 2017
- Project Title: Non-rigid Image Registration on Videos distorted by Atmospheric Turbulence.
- Applied and Analyzed algorithms such as CGI(Control Grid Interpolation), Lucas - Kanade, FRATAAS(First Register Then Average and Subtract) to remove Heat Scintillation.
- Improvements were made on scene change and moving object recovery situations.
- Proposed new method called "Dual Registration" to handle high Scintillations. [MATLAB]

Honors

- secured Rank 64th in ACM ICPC Asia Kolkata Regional 2016 after competing with 900+ teams in Online Round.
- Contestant at ACM ICPC Asia Amritapuri Regional 2015 after competing with 1500+ teams in Online Round.
- Secured All-India-Rank 491 among 1,07,893 candidates in GATE - Graduate Aptitude Test for Master Degree's Admission in India. Exam Stream : Computer Science.
- Qualified for Semi-Final Round in TCS Codevita season 4 & 5 Coding Competition.
- Secured 38th Rank out of 800+ participants in CodeVaitam Coding Competition conducted by NIT Agartala on Codechef platform.

Projects

Load Balancing on Software Defined Network(SDN) — *Network* — Aug 2018 – Present
- Improving Round-Robin and Dynamic load balancing methods proposed in IEEE 2015 & ICNNA 2016 respectively. [Mininet]

Zombie Hunt Game — *Algorithm* — Jan 2016 – Apr 2016
- Created this game where each Zombie follows the player using the Shortest Path Finding Algorithm called A*(A-Start) Algorithm by calculating Heuristic Values.
- Implemented weapon facilities to kill Zombies. [python 2.7, pygame]

File Transfer using Selective Repeat Protocol using UDP Packets — *Network* Jan 2015 – Apr 2015

- Implemented Multi-threading function at Sender & Receiver side to Send & Receive UDP Packets/ACKs.
- Implemented Time-Out-Timer to resend lost packets. [C++, pthread]

Terminal Based Quiz using RPC — *Operating System* Sep 2014 – Nov 2014

- Using Remote Procedure Call, Client attempts Quiz consist of 50 Random Questions. Any number of clients can interect with Server simultaneously. Implemented Rank feature.
- Handled unexpected failures by storing last status of Clients at Server side. [C]

Survey/Term Presentation

Critical Analysis of Quorum based Distributed Mutual Exclusion Algorithms — *Distributed Systems* Aug 2018 – Present

- Comparing Algorithms based on various performance matrix such as the Order of messages for critical section invocation, synchronization and response time.

Monte Carlo Factorization Approximation Algorithm — *Algorithm* Aug 2018 – Present

- Presented survey of Monte Carlo Factorization Approximation Algorithm.

Position of Responsibility

- Curated Algorithmic programming problems for "Clash of Coders" a national level online series at HackerEarth. Jan 2015 - Apr 2016

Extra Interests

- Solved 600+ algorithmic problems on various online programming platforms like Codeforces, Codechef, HackerRank.