

Hardhik Mallipeddi

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Education

2011–2016 **B.Tech. and M.S. By Research in Computer Science**, *International Institute of Information Technology, Hyderabad, GPA – 8.02.*

Current

Title *On reporting the L1 metric closest pair in a query rectangle.*

Mentor Dr. Kishore Kothapalli

Description Aim of this is to implement an efficient data structure on GPU and hybrid environment(GPU+CPU) to solve the problem of reporting closest points in L1 metric.

Experience

2013–Present **Teaching Assistant**, *Computer Programming, Data Structures and Algorithms, ITWS2, IIIT HYDERABAD.*

- Responsible for creation and evaluation of assignments, quizzes and examination questions. Used MOSS for plagiarism detection.
- Held Tutorials and Lab sessions for the course students.

Awards and Achievements

2013 Honored by Deputy Chief Minister, Sri Damodara Raja Narasimha for my academic performance during 2012-13 academic year.

2013 2nd Position among many other ideas pitched at the TiE's Idea Carnival for our idea 'Pipeline' and a chance to be in the accelerator program.

2013 Qualified for the ACM-ICPC Asia-Amritapuri-2013 regionals.

2013–2014 Finalist in NIT-W N.P.L. (National Programming League), 2013 and 2014)

2011 Acquired 3346 (All India Rank) in the A.I.E.E.E. (more than a million participants) and 1476 rank in E.A.M.C.E.T. (0.3 million participants) respectively.

Major Projects

Present **Optimizations On Large Graph Computations**, *Dr.Kishore Kothapalli, C.S.T.A.R., IIIT Hyderabad.*

-Currently, on reporting L1 metric closest pair in a rectangle.

-Previously worked on A.P.S.P. problem, sorting and matrix multiplication algorithms on GPUs. Coding using CUDA.

Spring '13 **Custom SQL Engine. Database Systems course project.**, *Dr. P.K.Reddy.*

-Implemented a custom SQL engine which handled data that does not fit in memory.

Monsoon '13 **Hand written Numbers recognition and Face recognition using Statistical Methods in AI**, *Dr.Anoop Namboodiri*.

-Implemented a machine learning tool for face recognition and extended it for use as a classroom attendance system.

-Used knn classifier to test recognizer against a training set of images of hand-written data.

Monsoon '12 **Room Allocation System, IIIT-Hyderabad**, *Dr.Raghu Reddy*.

-A portal for requesting and allocation of classrooms for courses and other purposes.

-I coded the recording of requests and checking for clashes among requests and also the display of calendar with current status of the requests for rooms using PHP and MySQL.

Minor Projects

Spring '14 Concurrent SkipLists in Java using concurrency libraries -Concurrent D.S. project.

Spring '13 Application level files sharing custom protocol - Computer Networks course project.

Summer '14 Work Queue visualization tool using DimpleJS. Mentor: Dr. Kishore Kothapalli

Spring '13 RPG Game, Graphics course project. Mentor: Dr. Anoop Namboodiri.

Monsoon '12 Custom Linux Shell, OS course project. Used system calls from C libraries.

August '14 Graphical Ice Bucket Challenge using OpenGL, C++

Links github.com/Hardhik, bitbucket.org/hardhik, plnkr.co/users/Hardhik.

[A.P.Speaks\(apps.facebook.com/apspeaks\)](https://www.facebook.com/apspeaks), [BooksNMovies\(apps.facebook.com/booksnmovies\)](https://www.facebook.com/booksnmovies)

Skill Set

Prog. Lang. C, C++, Python, Javascript

OS GNU/Linux, Windows

Scripting Bash, Python

Web Tech. HTML, CSS, JavaScript, PHP, Web2Py

Databases MySQL

APIs CUDA, OpenGL, Web2Py

Courses

Parallel Programming, Concurrent D.S., Advanced Algorithms, Distributed Algorithms, Distributed Systems, Software system Design, Computer Networks, Statistical Methods in A.I., O.S., D.B.M.S.

Miscellaneous and co-curricular activities:

2014 Being a Students Placements Coordinator successfully organized and managed recruitment drive for companies. Lead a group of volunteers during this.

Dec '13 Received scholarship and attended the Hi.P.C. (High Performance Computing) conference.

Feb '14 In the Technical and Cultural Activities organizing team -Felicity, IIIT-Hyderabad

2013 – 2014 Participated in various events of Google (Google I/O Extended event, gDay, Devfest), Yahoo! Hack India: Hyderabad 2013, AppHack (angelhack).

Current Volunteer for The Art of Living and HSCO (Helping Stick Charitable Organization).

DECLARATION I hereby declare that the above information is true to the best of my knowledge.