

Vamshi Pasunuru

CONTACT INFORMATION

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RESEARCH INTERESTS

Database Systems (Query Optimization, Data Analytics), Algorithms.

EDUCATION

Indian Institute of Science (IISc), Bangalore, Karnataka, India
Department of Computer Science and Automation (CSA)
M.E , July 2014-16 (expected)

- Focus : Database Systems
- Advisor: Prof. Jayant R. Haritsa

Osmania University, Hyderabad, Telangana, India.

B.E, Computer Science and Engineering , June, 2014

SELECTED PROJECTS

Predicting Query Execution Time **June 2015 -**
Query optimizer's cost model is insufficient for accurately predicting execution time. The goal is to come up with relevant metrics to capture CPU and I/O time for different query operators with a trade-off between accuracy and running time.

Finding similarity across relations using Support estimation **January 2015-**
Developed a sampling based estimation algorithm to find the similarity across relations. Goal is to find the similarity by looking at a fraction of data at both source as well as target and come up with relevant attributes to estimate similarity.

Enhancing NECTAR **January-May 2015**
NECTAR(Nash Equilibria CompuTation Resource) is a software tool for computing Nash equilibria of strategic form games and extensive form games. As part of the project, we integrated an open source linear programming solver "lpsolve" into the package and also made it web-accessible.

Analytics on Encrypted Database **August-December 2014**
Developed techniques to perform Nearest neighbor queries on 2-Dimensional encrypted data. The solution deals with partitioning encrypted data into Voronoi cells to have minimal data transfer over network. We have also proposed an extension for dealing with higher dimensional data.

Wordtrix **[B.E project] August 2013-June 2014**
Built an on-line multi-player game based on Boggle (An old word puzzle). As part of this, we developed algorithms to generate games which have sufficient score, protocols to ensure accurate timing and to maintain the user's progress.

Free SMS **[Hobby project] August 2011-December 2013**
Built a mobile app which aggregates several free on-line SMS portals each having certain restrictions. As the Services are unreliable, app automatically picks the best service among all feasible services. Got **1 Million** downloads in windows phone store alone!

OTHERS

- Secured All India Rank- 86 in Graduate Aptitude Test in Engineering (GATE)- 2014.
- Teaching Assistant in CSA, IISc for E0261: Database Management System Course offered by Prof. Jayant Haritsa for Aug 2015 - till date.
- My other hobbies include Sports, Traveling and Eating!