

Areas of Interest

Databases, Distributed Systems, Algorithms

Education

Master of Technology in Information Technology, July 2004 till present (in progress)
Kanwal Rekhi, School of IT, IIT Powai, Mumbai
CPI for 3 Semesters : **9.41**

Bachelor of Engineering in Computer Science and Engineering, July 1999 - May 2003.
Government College of Engineering, Pune. (Affiliated to University of Pune, Pune)
Average Percentage of four years: **73.275**
Overall Rank for four years: 3rd out of 60 students.

Experience

Persistent Systems Private Limited
Pune

Member of Technical Staff
July 2003 - July 2004

Worked on the *enList Server*, a product that gives a seamless SQL access to the directory data.

Roles and Responsibilities : Design and implementation of the JDBC driver for the enList Server, Design and implementation of the Java based Client.

See [PSPL](#)

Government College of Engineering,
Pune

Visiting Lecturer
July - Dec 2003, Jan - May 2004

Taught **Discrete Structures and Graph Theory** and **Database Management Systems**

Projects

Compressed Flash memory based Database
System

MTech Project

Prof. Sudarshan,

July 2005 - present

Prof. Krithi Ramamritham

- Flash memory is a medium of choice in mobile and handheld devices, as opposed to disks, due to its attractive features such as fast I/O speed, lower power consumption and smaller size. However, due to high cost per GB and limited storage capacities, Flash memory databases need to be stored in compressed form. The goal of the project is to compress in such a way that the Database fits in the available space and at the same time, the overall query performance over this compressed database is within acceptable limits. The compression strategies take into account flash characteristics such as limited write-erase cycles and inability to update in-place.

- *Tools* : [DELite](#)

Consultant for Constraint Satisfaction in Grids

B.E. Project

Calsoft Systems

July 2002 - May 2003

Pvt. Ltd, Pune

- *Description*: Worked in a team of three on the design and development of an extension to the Globus Grid Toolkit that enables search for resources that satisfy specified constraints and which are optimal according to a given cost metric.

- *Tools* : [Globus Grid Toolkit](#)

Seminars

Time series Forecasting using Holt-Winters

MTech, Semester I

Exponential Smoothing

Prof. Bernard Menezes

August 2004 - Nov 2004

Analysis of seasonal time series data using Holt-Winters exponential smoothing methods.

Other Projects

Database Management Systems

Course Project

MTech, Semester I
Oct 2004 - Nov 2004

Log Based Recovery System for DELite

DELite is an Open Source Light Weight Database Management System targeted at resource-constrained platforms like Simputer. In a team of three, developed a Log based Recovery System for DELite.

Tools : C, DELite

Data Mining and Warehousing

Course Project

MTech, Semester II
Jan 2005 - Apr 2005

Intrusion Detection using Datamining techniques

- An Anomaly-Detection based Intrusion Detection System. Schemes such as Out-lier Detection for Network based IDS and Prediction of system calls for Host based IDS, were used for the same.
- *Tools* : Java, Weka, Perl

Principles of Distributed Systems

Term paper

MTech, Semester II
Jan 2005 - Apr 2005

Query Execution in Distributed Text Databases

Study of various distributed index organization schemes and the algorithms for processing in parallel batches of queries using these organizations.

Systems Lab

Project

MTech, Semester II
Jan 2005 - Apr 2005

Integrated e-Learning Environment over the Internet

- An integrated eLearning environment over the internet.
- *Tools* : J2EE (JBoss 4.0), Java Swing, EJB-QL

Foundation Lab

Course Project

MTech, Semester I
Oct 2004 - Nov 2004

Web-based LDAP Browser

- A Web Interface for LDAP Data Browsing and Editing
- *Tools* : PHP, Apache Web Server, LDAP API's

Network Security

Course Project

MTech, Semester I
Oct 2004 - Nov 2004

Weak Keys in Diffie Hellman Protocol

A study of attacks and vulnerabilities in the Diffie Hellman Protocol

Other Experiences

- Teaching Assistant for the course *Database Management Systems* conducted by Prof. Sudarshan and Prof. Krithi Ramamritham.
- Teaching Assistant for the course *Principles of Distributed Systems* conducted by Prof. Umesh Bellur.
- Current Industry Interactions Secretary for Information Tech. Association(ITA), KReSIT.

References

Prof. S. Sudarshan

Professor

Dept. of Computer Science and Engineering, IIT Bombay, Powai, Mumbai - 76

Email : sudarsha@cse.iitb.ac.in

Prof. Krithi Ramamritham

Head

Kanwal Rekhi School of Information technology IIT Bombay, Powai Mumbai - 76

Email : krithi@cse.iitb.ac.in

Declaration

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

[Prajakta Kalekar]