K. Ramachandra Room No: 14, OBH

International Institute of Information Technology

Hyderabad -500032.

E-mail: ramachandra@students.iiit.ac.in
Home-Page: <a href="mailto:http://research.iiit.ac.in/~ramachandra@students.iiit.ac.in/~ramachandra@stude

Education

B Tech in CSE	IIIT Hyderabad	8.97 (CGPA)
Higher Secondary (State Syllabus)	Abhyudaya Jr College Hyd	95.4 %
Secondary Study (CBSE)	P. Obul Reddy Public School Hyd	89.6 %

Publications

- Ramachandra Kota, Vidit Bansal, Kamalakar Karlapalem, System Issues in Crowd Simulation using Massively Multi-Agent Systems, Second International Workshop on Massively Multi-Agent Systems (in conjunction with AAMAS 2006), 2006.
- Ramachandra Kota, Prasant Gopal, Yasovardhan Reddy, Kamalakar Karlapalem, Kshitij Robocup Rescue Simulation Team Description, RoboCup 2006 Sumposium (TDP), Bremen Germany 2006.
- Ramachandra Kota, Ravindranath Jampani, Kamalakar Karlapalem, Kshitij: Team Description, *RoboCup 2005 Symposium (TDP)*, Osaka Japan 2005

Conferences and Workshops Attended

- RoboCup 2005, Intex Osaka Japan (July13-19 2005)
- Hyderabad Multi Agent Systems School, IIIT Hyderabad India (Aug5-12 2004)

Projects

RoboCup Rescue

The aim of this project is to develop intelligent agents which can interact with each other and their environment during disasters. The agents have to perform various rescue acts such as clearing debris, rescuing civilians, putting out fires, etc. in order to minimize the damage caused by the disaster. This project involves implementation of concepts of AI, multi-agent systems, and machine learning. This project won the 3rd position in the Rescue Simulation Competition held as part of RoboCup 2005 at Osaka. For more details, visit http://cde.iiit.ac.in/robosoccer/RoboRescue/index.html.

Crowd Simulation using a Massively Multi-Agent System

The aim of this project is to create a multi agent system which can simulate a huge number of civilians of the order of hundreds of thousands. Large scale crowd simulations have a variety of uses. A unique approach has been developed to simulate crowd behaviour with huge number of civilians. The approach has been detailed in a paper that has been accepted at the *Workshop on Massively Multi-Agent Systems* 2006 to be held at Hakodate, Japan.

Word Sense Disambiguation

Word sense disambiguation (WSD) is an important problem in the field of natural language processing. In this project, this problem was tackled by using relations which occur between pairs of words. Using this as the basis, we developed a supervised algorithm for a limited domain and a more general unsupervised algorithm.

Intelligent User Interface for Research papers

Done as a course project in Special Topics in Data Mining, this project involved creating a system with an intelligent User Interface for searching and reading research papers. The system would suggest other related papers based on keywords, abstract and references and user history.

Data Mining on Agrids Data

Done as a course project in Data Warehousing and Data Mining, this project involved applying data mining concepts on the given Agricultural (Agrids) data to extract clusters of similar farms and advices. The Agrids data contains the records of the various farms, their attributes and the advices provided to the farmers.

Algorithm for simple polygon intersection

Done as a course project in Computational Geometry, this project involved developing and implementing an algorithm for detecting simple polygon intersection.

Display Family Tree

Done as a course project in ITWS3 (Software Technologies), it involved designing and developing a system which stores data regarding persons, their attributes and various relations with other persons without any redundancy or repetition and provides a GUI which answers a wide range of queries about persons and their relations. This project was put for display during the annual R & D Showcase of IIIT.

Achievements

- Head of the two member team 'Kshitij' which won 3rd position in Rescue Simulation League
 Agent Competition of RoboCup 2005 held at Osaka, Japan. For details visit
 http://robocup2005.org/news/results.aspx.
- Obtained 24th position in ACM ICPC Asia Regional 2005 at Kolkata
- Qualified to ACM ICPC Asia Regional 2005 held at Coimbatore (did not attend)
- Obtained 2nd position in the Programmers Marathon conducted by Sierra Atlantic.
- Obtained 4th position in the Programming Contest conducted by IIIT-Allahabad
- Obtained 23rd position in Bitwise 2k5Programming Contest conducted by IIT-Kharagpur
- Was awarded the Pratibha Scholarship by AP State Government for Academic excellence.
- Was listed in the IIIT Dean's Scholarship List for all semester till present.
- Was awarded the Best Outgoing Student by my school.
- Topper in both Secondary School and Higher Secondary School

Work Experience

- Teaching Assistant for Data-Structures and Algorithms in spring semester '05 and '06
- Teaching Assistant for Computer Programming in monsoon semester '05
- Teaching Assistant for ITWS-III (Software Technologies) in monsoon semester '04
- Internship in Language Technologies Research Center, IIIT in May-July '04

Skill Set

Operating System Linux, Windows XP Programming Languages C, C++, Java, Lisp

Scripting Languages Perl, Bash

Web Designing Tools

DBMS

MySQL, MS SQL Server
Libraries

OpenGL, Qt, Glut

Miscellaneous MS Office, Socket Programming, Matlab/Octave

Activities

Was Head of Organising Committee of Threads, the Technical Festival of IIIT in the year 2005.

Winner of Inter-college and Intra-college Quiz competitions

Winner of Poetry competition in college

Member of the Auxiliary Committee of Campus Life Council

An active member of the IIIT Quiz Club and the Debate and Public Speaking Club

Was a member of the Students Constituent Assembly.

Blogging, Reading and listening to music, playing chess, TT, cricket etc.