Sambavi Muthukrishnan

sambavi@cs.wisc.edu

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Work Address	*Home Address*
Computer Sciences Department	Apt no 16
University of Wisconsin-Madison	112 North Orchard Street
1210 West Dayton Street	Madison
Madison, WI 53706-1685, USA	WI 53715, USA
Phone:- (608)2626612	Phone:- (608)2553244

Current status: MS student

Immigration Status: F1

Objective

Seeking a summer internship in the area of systems - Databases/Networking/Operating systems.

Education

- Graduate Student, September 1999 - present
  Computer Sciences Department, University of Wisconsin-Madison
  GPA: 4.0/4.0

- BE Computer Science and Engg., August 1995 - May 1999
  School of Computer Science, College of Engg. Guindy, Anna University, India
  GPA: 9.8/10.0
  Class rank: 1 / 82
  University wide rank: 1

Project Work

- Graduate class projects
  Advanced Operating Systems CS 736 - Fall 1999
  Working as a team of two, we developed a file system interface to the World Wide Web on Linux. This provided a uniform interface for files on the local file system and web documents and enabled applications written to use the local file system to be automatically extended to use web files. The project required the implementation of a new file system for Linux as a kernel module.

  Introduction to Computer Networks CS 640 - Fall 1999
  Working as a team of three, we designed and implemented protocols for reliable multicasting on a datagram network. The protocols we developed were for a reliable multicast transport layer and for a datagram multicast-capable network layer over UDP.

  Database Management Systems: Design and Implementation CS 564 - Fall 1999
  In a team of two, we developed various components of a single-user DBMS to execute certain simple SQL queries. The components that we developed include a buffer manager, heapfiles, relational and attribute catalogs and implementation of relational operators(sort merge join, grace hash join, selection, projection).

- Selected Undergraduate projects
  Area: Distributed Systems
  The project entailed the implementation of an interoperability model between the distributed object models DCOM (Distributed Component Object Model) and CORBA (Common Object Request Broker Architecture) to enable DCOM clients to access and use CORBA objects like native DCOM objects.

Area: System Software
This project involved the design of an efficient two-pass assembler (coded in C) for a well constructed subset of the 68000 instuction set. A software simulation of the 68000 processor on 80x86 was developed to serve as the base for the assembler.

Area: Artificial Intelligence
Artificial intelligence techniques in Prolog were used to enable a smart simulation of the Indian game of Pallankuzhi as a computer-human game. The minimax algorithm was used to decide the computer's moves.

Technical papers presented

Sambavi Muthukrishnan and Arul Siromoney, *Performance Evaluation of a Distributed Web Based Information System*, presented at the 5th International Conference on High Performance Computing (HiPC 98), www.ece.nwu.edu/ banerjee/HIPC98-POSTER/ sambhavi.ps

Honors and Awards

- Awarded University Vilas Fellowship 1999-2000 by the University of Wisconsin-Madison
- Awarded the Guindy Engineering College Gold Medal 1996 and 1999, Ramanujam Endowment for academic excellence in undergraduate study
- Recipient of the National Talent Scholarship awarded by the National Council for Educational Research and Training, Govt. of India
- Secured the second place in Math Quiz and consolation prize in Math Olympiad at the Inter-College Math Symposium FORAYS 97 conducted by the Department of Mathematics, IIT Madras
- Ranked 2nd in the state in the Engineering Admissions list for admission to the Engineering colleges in Tamilnadu, India (also selected at national level for admission to the IIT's - ranked in the top 2% of the candidates who took the Joint Entrance Exam 1995)
- Ranked 6th in the Inter-State(India) Talent tests in Mathematics, 1993

Work Experience

Summer Intern, June 1998-July 1998, SRA Systems Ltd., Chennai, India
Explored three deployment options for the company's MIS developed as three-tier architecture using DCOM. The study involved a comparison of the performance of the deployment options. The result of this study was presented at HiPC 98.

Graduate Courses

Introduction to Computer Networks (CS 640)
DBMS: Design and Implementation (CS 564)
Advanced Operating Systems (CS 736)
Distributed Systems (CS 739) (taken in Spring 2000)
Topics in DBMS (CS 764) (taken in Spring 2000)

References

Available on request