Janani Thanigachalam

tjanani@gmail.com
http://www.cs.wisc.edu/~janani

Amazon.com
International Tech Park (ascendas)
Taramani, Chennai 600 113

Old 9, New 17 Solai Amman Koil Street
Purasawalkam, Chennai 600 007
Home - 91-44-26411693

Areas of Interest

Computer Networks, Distributed Systems/Client-Server Technologies, Service-Oriented Architecture, J2EE and Object Oriented Programming.

Education

University of Wisconsin-Madison
M.S. Computer Sciences, Aug 2003 - Dec 2004

- Worked with the Wisconsin Advanced Internet Lab (WAIL) team as an RA under Prof. Paul Barford on Network monitoring, measurement and analysis.
- RA project on using Intel's Network Processor (IXP 2400) for Packet Classification and NetraMet on DAG cards for flow-based measurement and analysis.
- GPA: 4.0/4.0

College of Engineering, Anna University, Guindy, Chennai, India
B.E Computer Sciences, Aug 1999 - May 2003

- Courses and Projects in Databases, Networking and Compilers
- GPA: 9.8/10.0
- University rank: 1

Work Experience

[Dec 2006 - till-date]: Software Development Engineer at Amazon Development Centre, Chennai

- Working on the Design and Implementation of offering Digital solutions in Amazon.com website

[Jan 2005 - Dec 2006]: Member of Technical Staff at Oracle USA Inc.

- Worked on Application Server Management as part of the System Management Products team.
- Worked on the Design and Implementation of the Data Exchange feature between Oracle's Enterprise Manager (Grid Control) and any external system (specifically BAM - Business Activity Monitoring tool). This project is part of Oracle's SOA release.
- Good exposure to Service-Oriented Architecture, J2EE including JMS and XML technologies.
- Attended courses in Oracle University including a course on Spoken Communication and Presentation skills.

[Jan 2004 - Dec 2004]: Research Assistant under Professor Paul Barford (Networks Research Group)

[Aug 2003 - Dec 2003]: Teaching Assistant for Introduction to Object Oriented Programming (Java)

Graduate Courses

- Introduction to Computer Networks
- Advanced Topics in Database Management Systems
- Advanced Computer Networks
- Data Models and Languages (Formal Topics in Databases)
- Introduction to Artificial Intelligence
- Advanced Operating Systems
- Models and Formalisms for Computation
- Thesis on using Intel's IXP 2400 for Packet Classification in an Intrusion Detection System

Projects

"Implementing a Packet Monitor on Intel's Network Processor (IXP 2400)"
Project carried out as part of CS740 - Advanced Computer Networks, Spring 2004
Used IXP2400 - Intel's second generation of Internet Exchange Network Processors - for implementing a flow-based packet monitor. With multi-threaded transmit/receive drivers, the results show better performance, due to high-level of parallelism.

"Dynamic IP Address Reconfiguration using SCTP (Stream Control Transmission Protocol)"
Accepted as a POSTER paper for presentation in the IEEE TENCON 2003 Conference
Used NS-2 Simulator to simulate dynamic IP Address addition/deletion within an existing SCTP association without disturbing the established connection. Studied the multi-homing and multi-streaming feature of SCTP and did a comparative study with TCP.

"Implementation of an Ethereal-based packet trace analysis tool"
Project carried out as part of CS640 - Introduction to Networks, Fall 2003
Studying TCP-behavior by analysing packets captured using Ethereal.

"Mobile TCP - Performance Analysis of M-TCP using GloMoSim"
Project carried out as part of Mobile Communications Lab, Nov-Dec 2002.
Used GloMoSim to modify the TCP implementation to accommodate for better performance of TCP in wireless scenario, where packets can be dropped for reasons other than congestion.

"Cognitive Packet Routing using Back Propagation Network"
Project carried out as part of Neural Computing Lab, Mar-Apr 2002.
Used Matlab to simulate a Back Propagation Network which can learn the routing behavior of packets and do further routing based on this learning.

"Virtual Shopping site implemented using Web Services"
Project carried out as part of the C# and .NET Programming Lab, Mar-Apr 2002.
Used C# and .NET Programming to develop an e-Shopping site which does Credit-card authorization and session maintenance using the Web Services feature. Web Forms were used to develop the Shopping cart.

Skills

Operating Systems: GNU/Linux, Windows
Programming Languages: C, C++, Java, C#, VC++
Technologies: SOA, J2EE, XML
Softwares: Perl, VB, SQL, HTML, Javascript, JSP, Prolog, Python
Tools: NS-2, GloMoSim, Matlab

Special Achievements/Scholarships

- Anna University Gold Medalist, Anna University (2003)
- Gold Medal from Department of Computer Science and Engineering, Anna University (2003)
- Colgate-Gold Medal Endowment Award, for being the top ranker in B.E degree programme, Anna University (2003)
- Ramanujam Centenary Gold Medal for having secured the highest marks in Mathematics in B.E degree programme, Anna University (2003)
- Alumni Association, College of Engineering, Award of Endowment prizes for the year 2002-2003
- Cash Awards for best academic performance in Computer Science and Engineering, Anna University (2003)
- Late Thiru A. Muralitharan Endowment Prize , Anna University (2002)
- 1951 Alumni Golden Jubilee Endowment Prize, Anna University (2002)
- General Proficiency Award for being School Topper in Higher Secondary Exam (1999)
- Diploma in Multimedia - All India Rank 11 (1997-1999)
- Chosen as the best presenter in Oracle University's Spoken Communication Course (2005)