

Jigar H Doshi

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EDUCATION

University of Illinois at Urbana-Champaign, IL

Master of Science, Computer Science May 2006
GPA: **3.86**/4.00

University of Madras, Chennai, India

Bachelor of Engineering, Computer Science & Engineering - June 2004

Graduated in top 4%

Percentage: **86.40%** (approximate equivalent GPA **3.97**/4.00)

Selected Course Work: Distributed Systems, Mobile & Wireless Networks, Operating System Design, Embedded System Programming, Advanced topics in Distributed systems, Advanced Topics in Multimedia Systems, Design of Algorithms.

WORK & RESEARCH EXPERIENCE

Summer Intern, Apple Inc., May-August 05

Software Engineer, Platform Development, **iPod** Division.

Worked on a team of two to prototype a core feature for the next generation iPod.

Research Assistant, Monet Research Group, August 05 - Present

Working on a team of four to implement a distributed tele-immersive environment.

Graduate Assistant, Technology Entrepreneurship Centre, August 04-May 05

Student Webmaster / Writer / Editor.

TECHNICAL PROFICIENCY

Languages: C++ (with STL), JAVA, C, XML, Visual Basic, ORACLE PL/SQL

Web Skills: Perl, HTML/DHTML/Javascript, ASP, XML, Apache server, DreamWeaver, Photoshop, Flash.

Other Tools: GloMoSim, NS, MATLAB, Perforce, XCode, Eclipse, L^AT_EX.

Linux Kernel Programming Experience (Network Subsystem)

CURRENT PROJECTS

Audio streaming in a 3D teleimmersive environment

- Designing a framework to stream audio in a distributed 3D conferencing system with specialized synchronization constraints.
- Experimenting with single and multi channel audio.

Bandwidth Management in Ad Hoc Networks

- Currently working on adaptively transmitting video in a bandwidth constrained wireless ad hoc network.
- The system uses a module in the linux kernel level to guide the adaptation of video in the user space.

PROJECTS

Migration of the **Bandwidth Manager** in an Ad Hoc Network

University of Illinois, Spring 2005

- Evolved a distributed algorithm to co-operatively migrate the bandwidth manager in an ad hoc network in order to distribute load.
- Implemented scheme on a wireless testbed with 10 nodes.

OCEANUS : Energy efficient aggregation in a sensor network

University of Illinois, Fall 2004

- Worked on a team of two to analyze energy efficient aggregation in a sensor network.
- Designed a distributed algorithm to find the optimal aggregation point in a sensor network and compared it to other techniques.

Simulation and Performance analysis of **SAFAR**, University of Madras, December 2004

- Lead a team of 4 which implemented SAFAR (a routing protocol for mobile ad hoc networks) in GloMoSim (a C based simulator)
- Performed an analysis of SAFAR and a performance comparison to other ad hoc routing protocols, Extensive Simulation \simeq 200 simulation runs.

PUBLICATIONS

Jigar Doshi & Prahlad Kilambi - "**SAFAR: An Adaptive Bandwidth-efficient Routing Protocol for Mobile Ad hoc Networks**"

ADHOCNOW 2003 (Sponsored by ACM SIGMOBILE) LNCS Volume 2865 - Springer Verlag, pages: 12-24.