# Rajiv Kadaba

CONTACT Information 229 Easy St. Apt. B

Mountain View, CA 94043 USA

EDUCATION

Master of Science, Electrical and Computer Engineering, December 2009

The University of Texas at Austin

Bachelor of Engineering, Electronics, May 2007

Veermata Jijabai Technological Institute (VJTI)

Professional Experience

## Microsoft Corporation

Software Development Engineer 2, Mediaroom

August 2009 to Present

Voice: (512) 573-0179

E-mail: rajiv.kadaba@gmail.com

- Part of a team developing Media and Services components for IPTV clients.
  - Platforms: Xbox, iOS, WinCE
  - Media Transports: Smooth Streaming, RTP, MPEG-TS, Shoutcast
  - Metadata: TTML, Captions, Teletext, EBIF
  - Telemetry/Diagnostics Retrieval, Analysis and Visualization
  - A/V pipeline performance characterization and optimization
  - REST API's for remote administration

Software Engineer Intern, Mediaroom

June 2008 to August 2008

- Designed and implemented HDMI test framework along with an UI.
- Developed HD frame capture application by porting Directshow Interfaces to .NET.

ACADEMIC EXPERIENCE

## The University of Texas at Austin

Research Assistant, The Laboratory for Intelligent Processes and Systems Summer 2009

- Conducted research in the field of multi agent systems and the semantic web, specifically identity and trust in social networks.
- Developed software in python to build data sets, prototype algorithms and visualize results.
- Presented laboratory research at conferences and assisted with writing of grant proposals.

Teaching Assistant, Electrical and Computer Engineering Spring 2008 to Spring 2009

- Responsible for holding office hours, delivering lectures, providing model solutions to assignments, designing labs and grading (EE360C Algorithms) for 43 students.
- Responsible for grading software requirements documents and facilitating in class exercises for undergraduate and graduate students (EE382C/EE361Q Requirements Engineering).
- Independently, planned and developed a supplementary Instruction course in Electrostatics, Electromagnetism and Optics (GE208L). Instructed and managed a class of 22 students for a period of one semester.
- Received a student evaluation of 4.4/5.0.

## Bhabha Atomic Research Centre

Research Intern, Division of Remote Handling and Robotics

Spring 2007

- Developed model of small payload serial link flexible manipulator and characterized its oscillation dynamics.
- Simulated control schemes in Matlab as proof of concept for a prototype.
- Advisor: Dr. Debanik Roy

#### **PUBLICATIONS**

R. Kadaba, S Budalakoti, D. DeAngelis, and K. S. Barber. Modeling Virtual Footprints. In the Proceedings of The Workshop on Trust in Agent Societies at The Ninth International Conference on Autonomous Agents and Multiagent Systems (AAMAS- 2010); Toronto, Canada; May 10-14, 2010.

#### **PROJECTS**

Multivariate Statistical Approach to Reservoir Classification

Spring 2008

- Investigated the use of model trees and gradient boosting in predicting amount of gas recoverable from reservoirs in the GASIS data set.
- Achieved a prediction accuracy of over 99

Early Design Planning and Circuit Feasibility Analysis of OpenSPARC T1 Core Spring 2008

- Developed detailed floorplan of the Stream Processing Unit cluster.
- Performed Power Estimation and Critical Path analysis on assigned cluster for Subthreshold operation.

Design and Verification of a Reconfigurable Bloom Filter IP Core

Fall 2007

- Implemented fast pattern matching engine for Deep Packet Inspection using Bloom Filters which are always optimal in verilog.
- Designed Multi banked, pipelined SRAM architecture to allow for a throughput of 500MB/s.
- Validated against software model written in C++.

 ${\bf Human\ Machine\ Interface\ with\ Inertial\ Sensors\ using\ Optimal\ Estimation\ Techniques\ {\bf Fall\ 2006}}$ 

- Explored the advantages of inertial sensors in gesture recognition applications.
- Designed and built framework to allow humans to interact with existing software intuitively.

SKILLS

Programming Languages: Assembly (x86, AVR), C++, C#, Python

Web Development: JavaScript, Silverlight/WPF, PHP, MySQL, MS SQL

Platforms: Windows, Linux (Fedora), Xbox, iOS

Tools: Matlab/Simulink, Weka, MSC ADAMS

Integrated Circuit CAD: Cadence Virtuoso, Synopsys VCS, HSPICE

## ACHIEVEMENTS

First Place Winner, Robot Localization, IRocha, IIIT Hyderabad, 2007

Best Design Winner, IClean, Techfest, IIT Bombay, 2007

Second Place Winner, Level 3 Robotics, IEEE ISAC, 2005

Second Place Winner, Level 3 Robotics, IEEE Brainwaves, 2004

Professional Memberships & Service Institute for Electrical and Electronic Engineers (IEEE) Student Member 2006 - Present

Technical Head, IEEE VJTI Student Branch, 2006 - 2007