



# Ravikiran Janardhana

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## Experience

- 2011–present **Research Assistant**, *University of North Carolina at Chapel Hill*, Chapel Hill.  
Worked on identifying fiber crossings in white matter of the brain under *Dr. Martin Styner*
- 2009–2011 **Software Engineer**, *Yahoo! India*, Bangalore.  
Developed Facebook, Twitter and LinkedIn modules
- Implemented front-end based instrumentation of My Yahoo! product in order to compute page-views, module-views and click through rates (*CTR*)
- Developed an instrumentation dashboard to showcase daily statistics of views and clicks utilizing Apache Hadoop and Pig for the backend to query the records (*in the order of millions*)
- Demonstrated the quality of a utility player by handling both the frontend as well as the backend tasks which included porting legacy code, improving existing modules and developing new modules

## Education

- 2011–present **MS.**, *University of North Carolina at Chapel Hill*, Chapel Hill, NC.  
Masters in Computer Science
- 2005–2009 **BE.**, *Peoples Education Society Institute of Technology (PESIT)*, Bangalore, India.  
Bachelor of Engineering in Computer Science - 88.40%

## Computer skills

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|-----------|---|
| Super     | C/C++, PHP, Javascript  |
| Good      | Java, Python, Apache Pig  |
| Passable  | Perl, Shell, HTML5  |
| Platforms | Linux, Web  |
| Concepts  | Computer Vision, Motion Planning for Robots and Operating Systems |

## Academic Projects

- 2011 **Roadmap-based Motion Planning in Dynamic Environments.**  
Implemented a motion planning algorithm for a point robot to navigate in a dynamic environment consisting of both static and dynamic moving obstacles from start to goal

- 2011 **Identifying fiber crossing landmarks in the white matter of the brain.**  
Designed and Implemented an algorithm to identify fiber crossing landmarks in the white matter using entropy, fiber segments per voxel and fiber orientation dispersion measure  
The input for the algorithm is a Diffusion Weighted MR Image (DWI) and the output is an image which highlights the fiber crossing landmarks
- 2009 **Track Me - A suite of innovative user interfaces.**  
Track Me is a series of innovative user interfaces whose goal is to help users interact with their PC in a natural manner. It consists of:  
Fintrack ME - Finger Tracking Mouse Emulator  
Talk2me - A speech driven Powerpoint and Windows Media Player assistant  
Point2me - A laser point tracking Powerpoint and Windows Media Player assistant  
This won the best project award in the Department of Computer Science at Prkalpa 2009 organized by PES Institute of Technology
- 2008 – 2009 **American Sign Language Interpreter.**  
Developed real-time interpreter of American Sign Language alphabets which converts hand gestures into text, which is further read out by a speech engine  
This project resulted in a research paper[1] which was presented at *International MultiConference of Engineers and Computer Scientists 2009*  
An extension of this work appeared as a book chapter[2] in *Intelligent Automation and Computer Engineering*, Springer, 321-332, 2010

## Awards and Achievements

- Mar 2011 **Promoted, Yahoo! India**, Bangalore, India.  
Promoted to Senior Software Engineer
- Jan 2010 **University Gold Medal, Visvesvaraya Technological University**, PESIT, Belgaum, India.  
Received Gold Medal for being the University topper in Bachelor of Engineering (B.E) in Computer Science (2005-09)
- Jul 2009 **Certificate of Merit, International MultiConference of Engineers and Computer Scientists 2009**, Hong Kong.  
Received Certificate of Merit for the conference paper *Finger Detection for Sign Language Recognition* presented at IMECS 2009, Hong Kong

## Interests

Software	Linux and Open Source
Mobile	HTML5 and Android
Sports	Football, Cricket, Basketball
Entertainment	Classical/Electric Guitar, Keyboard, Computer Games and Table Tennis

## Publications

- [1] J Ravikiran, Kavi Mahesh, Suhas Mahishi, R Dheeraj, S Sudheender, and Nitin V Pujari. Finger detection for sign language recognition. In *Proceedings of the International MultiConference of*

*Engineers and Computer Scientists 2009*, volume I, pages 489–493. International MultiConference of Engineers and Computer Scientists, 2009.

- [2] J. Ravikiran, Kavi Mahesh, Suhas Mahishi, R. Dheeraj, S. Sudheender, and Nitin V. Pujari. Automatic recognition of sign language images. In *Intelligent Automation and Computer Engineering*, volume 52 of *Lecture Notes in Electrical Engineering*, pages 321–332. Springer Netherlands, 2010.