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*

The main goal of my research is to find the fiber crossing landmarks and use it for registration of human brains

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

2007 **Teaching Assistant**, *PES Institute of Technology*, Bangalore.
Worked as teaching assistant in the course of *Advanced Microprocessors*

Developed assembly programs in Microsoft Assembler (MASM) to demonstrate binary search, bubble sort, string operations and simple calculator and taught the same

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.
Percentage: 88.40, **University Topper**

Computer skills

Programming	C/C++, PHP, Python, Java, Perl
Web	HTML5, Javascript, CSS, YUI2/3, jQuery
Data Mining	Pig, Hadoop
Database	MySQL, Oracle
Platforms	Linux, Web
Concepts	Motion Planning for Robots, Computer Vision, Digital Image Processing, Operating Systems, Algorithms and Data Structures

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

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 Prakalpa 2009 organized by PES Institute of Technology

2008 – 2009   **American Sign Language Interpreter**.
Developed a 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, Hong Kong*

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.
Awarded 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.
Awarded 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
Web/Mobile	HTML5, Android and iOS App Development
Sports	Football, Cricket, Basketball
Entertainment	Classical/Electric Guitar, Keyboard, Computer Games and Table Tennis

Publications

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.

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.