



# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

P.O SRINIVASNAGAR, MANGALORE-575025

Placements 2009-10

VIVEK M RATHOD

B.TECH

Branch : COMPUTER SCIENCE

Gender : MALE

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PRESENT ADDRESS	PERMANENT ADDRESS
#A117, MEGA BLOCK, NITK HOSTELS, NITK SURATHKAL, SRINIVASNAGAR - 575025	PLOT 13, SHRI VISHNU, PRAGATI NAGAR, ASHRAM ROAD, BIJAPUR - 586103 (KARNATAKA)

## B.TECH DETAILS

SEMESTER	YEAR	S.G.P.A	C.G.P.A
SEMESTER 1	DEC 2006	8.64	8.64
SEMESTER 2	MAY 2007	9.17	8.88
SEMESTER 3	DEC 2007	9.09	8.95
SEMESTER 4	MAY 2008	9.19	9.01
SEMESTER 5	DEC 2008	8.48	8.91
SEMESTER 6	MAY 2009	7.96	8.75
SEMESTER 7	DEC 2009	7.63	8.64

## PRE DEGREE, 10+2th, 10th DETAILS

DISCIPLINE	INSTITUTION	UNIVERSITY /BOARD	YEAR	% MARKS
Xth	SAINIK SCHOOL BIJAPUR, KARNATAKA	CBSE	2004	86.4
XIIth	SAINIK SCHOOL BIJAPUR, KARNATAKA	CBSE	2006	83.2
B.TECH	NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL	NITK	2010	8.75(CGPA)

# SUPPLEMENTARY INFORMATION

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## EXTRA CURRICULAR ACTIVITIES

- 1) Solving algorithmic problems on Sphere online Judge (SPOJ).
- 2) Mlabwrap Development (python-matlab bridge).
- 3) Worked on problem set for algorithmic debugging contest during our technical festival Engineer 2009(Feb 2009)
- 4) Worked on problem set for our annual Online Programming Contest INSCRIPTION (Oct 2009)
- 5) I play for the institute Hockey team.

## ABOUT MYSELF

I am a motivated and hard working person. I am a good team player and I strongly believe in team work.

## TECHNICAL SKILLS:

Languages: C; C++; Python 2.6;  
Internet Technology Experience: Java servlets; HTML;  
Systems: Windows XP; LINUX (ubuntu);

## CO-CURRICULAR ACTIVITIES

### PROJECTS:

06/09-present: Mlabwrap- A high level Python-Matlab bridge

This library contains a C++ module and python wrapper, which communicate with Matlab C engine. Lets the user to use matlab from python like any normal python module. Developed n-dimensional array support for Mlabwrap project (mlabwrap.sourceforge.net). Wrote C extension for python which included manual reference count management. Added unit tests and performed regression testing.

05/09-07/09: Content Based Video Retrieval(CBVR), IIT Madras.

This system retrieves videos from the database based on a dominant object and its trajectory from a given query video or a sketch of object and its path. Designed and developed server system for deploying CBVR on web. Developed java applet and servlets for accepting query videos and sketches from client and also to co-ordinate query processing. Integrated Gabor filter based trajectory representation into CBVR.

05/09: TopCoder event parser

Developed a python script to parse TopCoder's event calendar. Used Google Calendar API and extended the script to update the retrieved events to Google calendar and to set up sms reminders.

02/09-02/09: Network audio Streaming.

Designed and implemented a player independent Audio Server-Client system for linux. It can be used to stream audio from any audio player. It uses IP multicasting support. Used ALSA "file write" plugin to tap raw audio data from normal ALSA audio path. Developed c++ module to Stream raw audio over a specified multicast address using RTP. Developed c++ module to receive raw audio from the multicast group and to write it to the audio device file on client.

## CO-CURRICULAR ACTIVITIES

08/08-09/08: Device Driver for stepper motor, and serial communication.

Developed char device driver for a bi-polar stepper motor as a loadable kernel module.

Developed char device driver for serial data communication between two computers using UART(16550).

06/08-07/08: Jooming

Advanced text display system. Displays a piece of text at various visual levels.

Displays words in text based on weights of the words in the context. The level of the displayed text can be changed to display more details or to reduce the displayed data.

Designed and developed code in python for weight assignment and text display.

Used NLTK (natural language toolkit) for identifying parts of speech.

Used XML DOM parser to get the document content from .docx format

### REFERENCE 1 :

Mrs Saumya Hegde,  
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Computer Engineering department,  
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### REFERENCE 2 :

Prof Tim Poston,  
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