DUAL DEGREE PROJECT
Implementation of cognitive radio on the USRP kit | June 2013 - till date
Guide: Prof S N Merchant, Dept. of Electrical Engineering, IIT Bombay
- Carried out energy detection spectrum sensing to find the lowest energy frequency band using Python
- Working on a cognitive OpenBTS system

PROGRAMMING SKILLS
Languages: C, Matlab, Python, bash scripting, Assembly for the Intel 8085 microprocessor, Octave, Verilog, Ruby, SQL, XML
Operating systems: Unix, Linux and Mac OS X

COURSE PROJECTS
Scalable video coding using wavelets | Feb-Apr 2013
Guide: Prof V M Gadre, Dept. of Electrical Engineering, IIT Bombay
- Compressed three different spatial resolutions of a video together into a single bitstream
- At the receiving end, uncompressed the best resolution for the bit rate available
Principal Component Analysis in face recognition | Oct-Nov 2012
Guide: Prof V Rajbabu, Dept. of Electrical Engineering, IIT Bombay
- Implemented an iterative algorithm of using PCA in face recognition
Design and test an algorithm for restoring a brain image | Sep-Nov 2012
Guide: Prof Arjun Arunachalam, Dept. of Electrical Engineering, IIT Bombay
- Implemented an algorithm to remove noise artifacts from a brain image

KEY COURSE ASSIGNMENTS
Course: Advanced computing for electrical engineers | Sep 2012
Guide: Prof Virendra Singh, Dept. of Electrical Engineering, IIT Bombay
- Implemented stack, queue, double ended queue, linked list, doubly linked list, self-adjusting lists
- Implemented 2-3 tree, splay tree, huffman tree and AVL tree
- Used C programming language for the implementation

SEMINARS
Measurement of interference temperature | Jan-Apr 2013
Guide: Prof S N Merchant, Dept. of Electrical Engineering, IIT Bombay
- Surveyed various ways of measuring interference temperature efficiently
LED's for high speed applications (over 100 Mbps) | Mar-Apr 2013
Guide: Prof Joseph John, Dept. of Electrical Engineering, IIT Bombay
- Presented a seminar on how LED's could be used for high speed fiber optic communications. LED's are cheaper, rugged and safer to handle compared to laser diodes

EXTRA CURRICULAR
- Won a silver medal in the All India Computer Knowledge Competition 2006
- '9/10' in the course EE 717: Advanced Computing for Electrical Engineers
- **Organizer, Infrastructure Team**,Techfest 2010
- **Social Service**: surveyed water and electrical resources of remote villages in Maharashtra
- **Interests**: Computer programming for technical problems, communications, problem solving, functional programming