	Madhu Kiran P		100070046	
	Electrical Engineering		UG Third Year (B.Tech.)	
	Indian Institute of Technology, Bombay		Male	
	Specialization: None		DOB: 13th July 1992	

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	9.00
Intermediate/+2	Board of Intermediate	Narayana Junior College	2010	97.20
Matriculation	CBSE	Vijnana Vihar School	2008	94.00

SCHOLASTIC ACHIEVEMENTS

RANKS SECURED
- **All India Rank 4** in IIT-JEE (Joint Entrance Examination) *(2010)*
- **All India Rank 14** in AIEEE *(2010)*

OLYMPIADS
- Achieved a Gold Medal in Indian National Physics Olympiad *(2010)*
- 2nd Rank at National Level in National Science Olympiad (NSO) *(2009)*
- 3rd Rank at National Level in International Mathematics Olympiad (IMO)

SCHOLARSHIPS
- Shortlisted for Aditya Birla Scholarship (1 among 20 throughout the nation)
- Shortlisted for OPJEMS Scholarship
- Receiving Merit-cum-Means Scholarship of IIT Bombay

ACADEMIC PROJECTS

SUMMER PROJECT (*Guided By Prof. V. M. Gadre*) *Summer 2012*
- Generalized the Fractional Fourier transform to obtain a new transform which was used to determine the parameters of a Quadratic Chirp Signal.
- Discretized the transform and modified it so as to be able to work in finite time domain.
- Simulated a chirp signal in MATLAB and applied the transform to obtain its parameters and hence proved the working of the transform.
- Awarded an **UNDERGRADUATE RESEARCH AWARD** for the contribution made.

COURSE PROJECTS
- SNAKE GAME *Semester 2 (2nd Year)*
  - Made the classical Snake game using a FPGA (an integrated circuit design which is programmable) and a 128 x 64 Graphical display
  - Programmed the FPGA using a hardware description language: Verilog
  - Led a team of three members
- BLOXORZ (A MIND GAME) *Semester 1 (1st Year)*
  - Created a mind game with 3D Graphical User Interface (GUI).
  - Used EzWindows API (Ubuntu) to create the GUI.
  - Synthesized algorithms to auto-generate the maps required for the game in C++.
  - Led a team of 4 members
- IMAGE PROCESSING *Present*
  - Filtering and enhancing a given image of brain via wiener filter and wavelet transforms in Matlab.

TECHNICAL COMPETITIONS

MAP IT (YAHOO'S HACK U COMPETITION) *Semester 2 (2nd Year)*
- Was solely responsible to develop an android application (MapIt) using the Google Maps API which shows the landmarks of an institution. The application synchronizes data from an online database.
- Also developed the web interface required to update the landmarks.
- Worked in a team of four.

TRACKMANIA (IIT BOMBAY) *Semester 1 (1st Year)*
- Assembled a remote controlled bot which overcomes the obstacles in the path (given in problem statement) and does so in least time.
- Achieved 6th position out of 200 – 300 teams.

WORK EXPERIENCE	**SUMMER INTERNSHIP AT LOCON SOLUTIONS** *Summer 2012*

WORK EXPERIENCE

SUMMER INTERNSHIP AT LOCON SOLUTIONS *Summer 2012*
- Developed an android application that shows the bus routes of Mumbai offline. It takes the initial and final locations of travel and gives the bus route on a map.
- Obtained the bus route information from various sites using python. Generated a sql database.
- Synthesized algorithms for computing the bus routes and wrote the required sql queries.
- Used Eclipse Android SDK to develop the application, used Google Maps API for the maps
- Was solely responsible for the entire project

TEACHING ASSISTANT (LINEAR ALGEBRA) *Semester 2 (2nd Year)*
- Taught a class of 45 students a course in Linear Algebra (MA 106).
- Interacted with the students, aroused their enthusiasm along with clarifying their doubts

MENTOR (QEA EDUVENTURES) *Semester 2 (2nd Year)*
- Delivered lectures on career guidance, mainly concentrating on engineering at various places like Hisar (near Delhi), Raipur, Mumbai, Vijayawada (AP)
- Interacted with some IIT-JEE aspirants, gave suggestions and guidance for JEE preparation

POSITIONS OF RESPONSIBILITY

LITERARY AND DEBATE SECRETARY (HOSTEL) *(2nd Year)*
- Planned and organized various intra hostel events like quizzes, debates, word games etc.
- Initiated new events to increase the enthusiasm of hostel inmates like:
  - Conducted the first ever inter hostel informal debate
  - Initiated online word games at hostel level with tempting prizes
  - Started a new hostel blog where inmates post their experiences regularly
- In my tenure hostel achieved 2nd position in Speaking General Championship after long time.
- Awarded **Special Mention** for the contribution made as a Secretary.

DEPARTMENT DESIGN SECRETARY *Present*
- Solely responsible for all the design aspects of departmental magazines, certificates, posters, logo, t-shirts, brochures etc.
- Made welcome video for freshers, to familiarize them with department, using Adobe After effects

SCHOOL CAPTAIN (HEAD BOY)
- Was elected as the school head boy in tenth grade.
- Represented the students and acted as a bridge between the students and teachers.

PROGRAMMING SKILLS

LANGUAGES
- C, C++, Java, HTML, CSS, Python, Verilog, JavaScript

DEVELOPMENT ENVIRONMENTS AND SOFTWARES
- Eclipse (Android SDK), Google APIs, Latex, MATLAB, Adobe Dreamweaver, Photoshop, After Effects, Quartus

OTHER ACHIEVEMENTS
- Gold Medal at chess Regionals (Hyderabad Region), Played at national level. Led the regional team which consisted of three members.
- Active member of Bharat Scouts and Guides. Received Rajyapuraskar Award. Participated in many community service activities.
- Received a degree of Rashtrabhasha Praveena in Hindi at the age of 12.

RELEVANT COURSES

ELECTRICAL ENGINEERING
- Image processing, Signals and Systems, Digital circuits, Analogue circuits
- Microprocessors, Network theory, Power electronics and Machines, Electronic Devices

COMPUTER SCIENCE (MINOR)
- Data Structures and Algorithms, Discrete Structures, Operating Systems