Gaurav Lulu
Electrical Engineering
Indian Institute of Technology, Bombay

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UG Third Year (B.Tech.)
Male
DOB: 11/06/1992

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	9.32
Intermediate/+2	CBSE	Delhi Public School, Risali, Bhilai, C.G.	2009	97.00
Matriculation	CBSE	Holy Cross Senior Secondary School, Kapa, Raipur, C.G.	2007	94.80

SCHOLASTIC ACHIEVEMENTS

- Topped the Kharagpur zone , securing All India Rank(A.I.R.) 87 in IIT-JEE out of 3.85 lakhs appeared [2009]
- Currently pursuing a Minor Degree in Computer Science at IIT Bombay
- Recipient of prestigious Amul Vidya Bhushan Award [2009]
- Secured AP grades in 2 institute courses, Computer Programming and Chemistry at IIT Bombay [2009]
- Recipient of Shweta Kothari Gold Medal for outstanding performance in AISSCE(CBSE XII board) [2009]
- Secured A.I.R. 24 in VITEEE among lakhs of student that appeared [2009]
- Secured 2nd rank in Chhattisgarh P.E.T. [2009]
- Certificate of Merit for scoring 100% marks in Mathematics and Computer Science in AISSCE [2009]
- Amongst top 1% students nationwide selected for Indian National Physics and Chemistry Olympiads [2008]
- Gold Medal in International Informatics Olympiad organized by Computer Literacy Foundation [2008]
- Amongst top 400 students selected for interviews of KVPY(Kishore Vaigyanik Protsahan Yojana) [2007]
- Secured A.I.R. 42 in 10th National Science Olympiad conducted by International organization SOF
- Certificate of High Distinction in Australian Chemistry Quiz by Royal Australian Chemical Institute [2007]

TECHNICAL PROJECTS

Microprocessor Architecture and implementation on FPGA [May'11 - July'11]
Guide:Prof Sachin Patkar
- Studied the internal architecture of Picoblaze, the soft processor core from Xilinx
- Analyzed the behavioral verilog code of Pacoblaze, an open source soft processor core like Picoblaze
- Extended the pacoblaze code to support Galois field operations generally used in cryptography

Mini UID (Unique Identity) Project [Sept'09 - Nov'09]
Guide: Prof D.B. Phatak
- Institute scale project based on the national level UID project 'aadhar' undertaken by Govt. of India
- Aimed at uniquely identifying any IIT student by analyzing his/her fingerprint
- Team leader for the fingerprint image verification and database development team, responsible for extracting parameters from fingerprint image and adding it to the central student database
- Language used: C/C++

Market Analysis [Aug'10-Sept'10]
Guide: Prof Haripriya Gundimeda
- Detailed study of laptop market in India which included analysis of the market share, market structure, level of competition and growth rate for major laptop manufacturing companies

Secure Data Storage and Transfer System [Mar'11 - April'11]
Guide: Prof Udayan Ganguly
- Designed the hardware for a multiuser system with options for password management, personal storage space and secured data transfer between users
- Designed the protocols to be used for data storage and transfer routines
- Implemented using 64Kb EPROMs controlled using a CPU based on FPGA Spartan 3E board

Classic Snake Game [Sept'08 - Oct'08]
- Programmed the popular snake game app using object oriented approach and a simple GUI
- Developed using C/C++

Surveillance Bot [May'11 - Jul'11]
Electronics Club, IIT Bombay
- Robot can be used for video surveillance over short range distances
- Wirelessly controlled using CC2500 Wifi module and 8-bit microprocessor
- Studied different communication protocols for data transfer between devices

Advanced Line following Bot [Nov'10 - Jan'11]
- Designed and built an autonomous bot that can follow a white painted path on a black background
- Made it to the top 20 teams out of 150 participating in Loop Rush, Techfest'11, IIT Bombay
- Bot used the P.I.D control to optimize line following and differential drive mechanism

POSITION OF RESPONSIBILITY

Department Academic Mentor [Jul'11 - present]
- Part of a 12 member team responsible for academic mentoring of students and suggesting changes to department course curriculum
- Helping 2nd year students of the department to cope up with their academic load and clear their backlogs

Institute Teacher Assistant for the course of Computer Programming and Utilization [Aug'11 - present]

Coordinator, 'Technoholix', Techfest,2011 [July'10 - Jan'11]
- Conceptualizing the shows and other attractions that will be presented at Technoholix in techfest, asia's largest college technical festival
- Supervised the installation and running of the "Discovery Dome"-a 225sqft mobile planetarium at Scintillations

Computer Secretary, Hostel 5 [Aug'10 - April'11]
- Part of 20 member council responsible for addressing hostel affairs and ensure its smooth functioning
- Responsible for administration of computer room and maintenance of hostel network facilities
- Cordinated with the Computer Centre, IIT Bomaby in revamping of hostel LAN

House Vice Captain, HCSS School [July'05 - April'06]
- Organised various student cultural activities and inter-house competitions for dance, drama, fine arts

SOFTWARE SKILLS

- **Programming Languages:** C/C++, HTML, PHP, MYSQL, Python
- **Hardware Description languages:** Verilog, VHDL
- **Softwares:** MATLAB, LT Spice, EAGLE, Xilinx IDE, Modelsim , Adobe photoshop

EXTRACURRICULAR ACTIVITIES

- Awarded B certificate for NCC(National Cadet Corps) training [2009]
- Part of the winning Production team at Performing Arts Festival, IIT Bombay [2011]
- Awarded Hostel Special Mention for important contribution to Performing Arts Festival [2011]
- Currently pursuing basic French communication course at IIT Bombay [2011]
- Donated food and clothing to poor children in a locality by coordinating with other NCC cadets [2009]
- Part of school team in inter-school volleyball tournament [2007]
- Participated in various literary contests at Freshizza IIT Bombay and bagged 2nd position in 'Rebus' [2009]
- Won the senior Inter-house Computer Programming Contest at school level [2008]
- Designed the flag which represents our hostel at various general championships at IIT Bombay [2010]
- Participated in inter-hostel sophie hockey and other intra hostel sports events [2010]

INTERESTS

- Robotics
- Algorithm development and Coding
- Digital Electronics
- Economics
- Gaming
- Photography
- Image Processing