SCHOLASTIC ACHIEVEMENTS

- **99.68** percentile in **GATE** in Electronics and Communication among **1,52,318** candidates *(2016)*
- Secured All India rank of **7578** among **11.87 Lakh** students in **AIEEE** *(2012)*
- Was **3rd** runner up in **national level** abacus competition by SIP-INDIA *(2008)*

MAJOR PROJECTS

- **M.Tech Project: OpenFlow Router with eBPF Forwarding Engine** *(May'18 - Present)*
  Guide: Prof. D. Manjunath, Electrical Engineering, IIT Bombay
  - The Goal is to use SDN framework, and create a fast forwarding engine.
  - The Forwarding Engine would be ported to a SPARC based FPGA, synthesised using AHIR tool

- **B.Tech Project: Obstacle Detection at Unmanned Railway Crossing
  Using Image Processing** *(Jul'13 - Apr'14)*
  Guide: Prof. V. R. Satpute, Electronics & Communication Engineering, VNIT Nagpur
  - Created own dataset for input.
  - Used basic image processing techniques, and morphological operations to extract moving obstacles at railway crossing

WORK EXPERIENCE

- **Software Developer** | *Nykaa* *(Jun'16 - Jul'17)*
  - **Roles and Responsibilities:** Involved in development of Product listing, Search, and Checkout verticles of the website.
  - Closely worked with Marketing team to embed tracking tags at numerous locations within the website.
  - **Softwares used:** Magento framework, PHP, Javascript, jQuery, HTML

- **Teaching Assistant: Communication Networks** | *IIT Bombay, IIT Dharwad* *(Jan'19 - Apr'19)*
  - Assisted Prof. D. Manjunath in creation and evaluation of Lab Experiments involving socket programming.
  - Work involved Traveling, Setting up Lab Experiments and evaluations at IIT Dharward.

- **System Administrator** | *PC Lab, Electrical Department, IIT Bombay* *(Jul'17 - Present)*
  - Development of EE department website, Dashboard, and maintaining numerous portals like faculty search committee, meeting room booking system, faculty wiki pages and TA allotment portals.
  - Provide mail service, storage space, computing and network facilities to the Department.
  - **Automation** of admission process through web based services and **Bash Scripts**

KEY COURSE PROJECTS AND SEMINAR

- **Simulation of Cellular system in MATLAB** *(Jan'18 - Apr'18)*
  Instructor: Prof. Abhay Karandikar, IIT Bombay
  - Computed **SIR, blocking probability** for different cluster sizes and **sectoring**. Analyzed **handover** process and **ping-pong** rate for different user mobilities and hysteresis values.
  - Analyzed BER performance for **space and time diversity** in a slow, flat fading Rayleigh channel.
  - Analyzed BER performance for a **single-cell** and **multi-cell** scenario in a **CDMA** cellular system.

- **Different Scheduling Schemes in LTE** *(Jan'18 - Apr'18)*
  Instructor: Prof. Abhay Karandikar, IIT Bombay
  - Simulated channel aware schemes: Maximum Throughput **(MT)**, Proportional Fair **(PF)**, Throughput to Average **(TTA)** scheduling schemes in LTE Downlink.
  - Used Cell Throughput, Average user throughput, and Jain Fairness Index as metrics to compare the scheduling schemes.

- **Image Dehazing through Depth estimation** *(Jul'18 - Nov'18)*
  Instructor: Prof. Amit Sethi, IIT Bombay
  - Estimated Depth of a scene, using Color Attenuation Prior **(CAP)** and Dark Channel Prior **(DPC)**.
  - Using the estimated depth, reconstructed a haze-free image based on atmosphere degradation model

- **Visualisation of DBSCAN Clustering Algorithm** *(Jan'18 - Apr'18)*
  Instructor: Prof. Amit Sethi, IIT Bombay
  - Implemented DBSCAN algorithm in python from scratch.
  - Utilised the implementation as a backend process for a web based GUI, which clusters data points and labels them, each cluster having a different hue.

- **Seminar: Open Source Router** *(Jan'17 - Apr'17)*
  Instructor: Prof. D. Manjunath, IIT Bombay
  - Understood SDN
  - Read about Click Modular Router, Extended Berkely Packet Filter, Network Processor Architecture
  - Implemented Click Modular Router.

KEY COURSE PROJECTS AND SEMINAR

Languages	:	C, C++, Bash Scripting, HTML, Javascript, jQuery, PHP, Python
Tools	:	Matlab, GNU Radio, LaTeX, Git, Wireshark
Frameworks	:	Magento, CodeIgniter

RELEVANT COURSES

- Digital Message Transmission
- DSP and its Applications
- Introduction to Machine Learning
- Wireless and Mobile Communications
- Image Processing
- Applied Linear Algebra
- Information Theory and Coding
- Statistical Signal Analysis
- Communication Networks

POSITIONS OF RESPONSIBILITY

- **Web Secretary |** *Hostel 1, IIT Bombay* *(Jul'17 - Jun'18)*
  - Development and Maintenance of Hostel 1 Web site, and Computers.

- **Student Companion |** *Institute Student Companion Program, IIT Bombay* *(Jul'18 - Jun'19)*
  - **Mentored** 7 M.Tech students by providing continuous help and support throughout the year
  - Played a key role in Department orientation, which included course registrations, informal sessions and lab visits for PG and PhD freshmen in *Communication Engineering* specialisation.

- **PG Bridge Course Overall Coordinator |** *Electrical Department, IIT Bombay* *(Jul'18)*
  - Organised a week long program for the **academic upliftment** of PG freshers.
  - Executed the program effectively in **parallel to regular academics** for more than **100** students.

- **Web Nominee |** *PGAC IIT Bombay* *(Jul'18 - Jun'19)*
- **Web Coordinator |** *Students' Reading Group, Electrical Department, IIT Bombay* *(Jul'18 - Jun'19)*

OTHER ACTIVITES & INTERESTS

- **Volunteered** for **Python** workshop by PGAC, IIT Bombay *(Oct'18)*
- **Volunteered** for **Linux** workshop for Electrical Department PG Bridgecourse, IIT Bombay *(Jul'19)*
- **Hobbies**: Watching TV series, solving puzzles, chess, snooker