MAJOR PROJECT

- **M.Tech Project: An efficient channel estimation scheme in TDD MIMO Systems** (*May'19 - Present*)
  Guide: *Prof. Kumar Appaiah, Electrical Engineering, IIT Bombay*
  - Implemented **Multi Cell MMSE based MIMO precoding** in multiple antennas systems which used non-orthogonal pilots for channel estimation.
  - Analysed and implemented **covariance based channel estimation** which uses Bayesian Estimation in single cell system and observed its performance based on rate vs number of antennas.
  - Working on implemention a basic precoder which utilises the information obtained from **Kalman** estimate in **coordinated MIMO** systems.

WORK EXPERIENCE & NON ACADEMIC PROJECT

- **Interview Management Software | Electrical Engineering Department, IITB** (*Feb'18 - present*)
  Guide: *Prof. Bikash kumar Dey, Prof. Madhu N Belur, Electrical Engineering, IIT Bombay*
  - **Lead role** in building online system that made **automatic coordination** across interview committees.
  - The online system allowed committees to decide in **real-time** using a **cross platform web application** about interviews.
  - Built various other **peripheral interfaces** to collect data at different times from students and other sources.
  - This system was used **successfully** in the last **3** admission sessions.
- **Systems Engineer | Infosys Technology Ltd** (*Dec'15 - Jul'17*)
  - **Roles and responsibilities:** part of the team which developed an application which automates billing for the customers of the client.
  - Wrote SQL queries to fetch data to the module and to develop features using Oracle Peoplesoft ERM tool.

KEY COURSE PROJECTS AND SEMINAR

- Scheduling in **4G LTE** | *Course: Wireless Mobile Communication* (*Jan'18 - Apr'18*)
- Simulation of **Cellular System** in Octave| *Course: Wireless Mobile Communication* (*Jan'18 - Apr'18*)
- Inter cell interference in **Multi Cell MIMO** systems | *M.Tech Seminar* (*Jul'18 - Nov'18*)
- **Image Dehazing** using CAP and DCP | *Course: Image Processing* (*Jul'18 - Nov'18*)
- Basic **Image Editor** tool in **Python** | *Course: Image Processing* (*Jul'18 - Nov'18*)
- **Wavelet based leaders** and **P-leaders** in Multi Fractal Analysis | *Course: Image Processing* (*Jul'18 - Nov'18*)
- **Spam URL** classification using **Machine Learning** | *Course: Network Security* (*Jan'19 - Apr'19*)

TECHNICAL SKILLS

Languages	:	C, C++, Python, HTML, PHP, JQuery, Bash scripting.
Tools	:	MATLAB, LaTeX, Git.

POSITIONS OF RESPONSIBILITY

- **System Administrator: Electrical Department, IIT Bombay** (*Jul'17 - Present*)
  - Building and maintaining the website of EE department, maintaining TA feedback and allotment portals.
  - Providing mail service, storage space, computing facilities and network facilities to the department.
- **Web Nominee: Post Graduate Academic Council, IIT Bombay** (*Jul'18 - Jun'19*)
  - Designed new web portal for PGAC which is used by all the Post Graduate students of the institute.
- **Mess Secretary: Hostel-1, IIT Bombay** (*Sep'17 - Mar'18*)
  - Managed all mess related activities for a mess which catered for 250+ students.

CO-CURRICULAR ACTIVITIES

- Completed **Machine Learning** course by **Andrew Ng** from Coursera. (*2019*)
- Conducted an introductory session on **Linux, Vim and Git** as a part of Bridge Course. (*2019*)
- Volunteered for an introductory session on **Python** which was conducted for more than 100 students. (*2019*)
- Completed a **100 hrs** course on the **Chinese** language conducted by IR office, IIT Bombay. (*2019*)
- Completed a short term course on **Digital System Design** organised by **C-DAC,** Hyderabad. (*2015*)
- An active member of **National Service Scheme (NSS)** for 2 years and attended a camp conducted in a village to perform social activities like conducting medical camps, cleaning and painting common facilities like village panchayat, temple etc. (*2013*)
- Completed basic course in the **French** language from Vivekananda Institute of Languages, Hyderabad. (*2012*)
- Volunteered for 1st **World Parliament on Spirituality** for a week as part of NSS activity. (*2012*)
- Completed Diploma in spoken English from Vivekananda Institute of Languages, Hyderabad. (*2012*)