

EDUCATION

Examination	University	Institute	Year	CPI/%
Graduation	IIT Gandhinagar	IIT Gandhinagar	2017- present	9.58
Intermediate/+2	Telangana State Board of Intermediate Education	Sri Chaitanya Junior Kalasala	2017	97.5
Class X	Telangana State Board of Secondary Education	St. Patricks High School	2015	10

INTERNSHIPS

HOME AUTOMATION (IoT) - IIT Gandhinagar

May - July 2018

Faculty Mentor(s): Prof. Neeldhara Misra and Prof. Shanmuganathan Raman, IIT Gandhinagar

- Developed a compact and convenient Home Automation System with voice control under STUDENT SUMMER TECHNICAL PROJECT (SSTP) 2018.
- Used UPnP (Universal Plug and Play) protocol for connecting devices and a RaspberryPi as the central system. Worked with Amazon Alexa for interfacing the voice commands to the RPi. Developed a dashboard web app (using Django) to monitor the status of the devices connected to the home automation system.

KEY PROJECTS

DYNAMIC DISPLAY SERVICE

Jan 2019

HackRush, IIT Gandhinagar

Hackathon

- Developed a Dynamic Display Service for efficient display of various events on screens present at different locations. Programmed a scraper to get data from airtable and designed an efficient Sequence Scheduling Algorithm.
- Developed the backend on NodeJS + ExpressJS and designed the frontend using Bootstrap. Did the templating using Mustache Templating Engine and connected the python code of the sequence scheduling algorithm using child_process.

PERSONAL ASSISTANT (CHATBOT)

Dec 2018

Coding Hackathon, Inter IIT Tech Meet 2018, IIT Bombay

Hackathon

- Developed a Personal Assistant Chatbot which will notify people to take medicines on time based on doctor's prescription. User can set notifications too. Additionally, people can find their railway PNR status and also find railway availability.
- Built up the chatbot using Facebook Messenger Developer options and used *ngrok* for inspection and debugging. Trained the bot using *wit.ai*. Used Railway API for railway details. The whole bot was set up on a Django backend.

SYNCHRONOUS FSM VERILOG CODE GENERATOR

Oct-Nov 2018

Prof. Joyce Mekie (Course Project)

Digital Systems

- Created a Synchronous Verilog code generator which generates the verilog code and test bench files and implements the program in the FPGA connected, based on the state diagram given by user.
- Used lark parser to parse required data from the file, created standard templates and rendered them using jinja2. Used Django as backend and *tcl console* of Xilinx Vivado for implementation.

POHAR - POST CYCLONE AIDING SYSTEM

Nov 2018

Coding Hackathon Team Selection, IIT Gandhinagar

Hackathon

- Developed a Post Cyclone Aiding System which helps to identify safe areas/routes and hospitals in flood/cyclone hit areas. It gives details about availability of resources too. Also user gives feedback about the condition of various areas. Built on Django backend and used google maps API for marking flood points and safe places/hospitals.

Prof. Krishna Kanti Dey (Course Project)

Physics Lab

- Used the phenomenon of Quantum Tunnelling and designed a emitter reverse biased transistor circuit for generating random output. Unbiased the output by using Von Neumann decorrelation. Verified the randomness of output using bitwise arithmetic mean, chi squared test and monte carlo pi test. Simulated a Wiener process using the random bits generated as displacement.

OTHER PROJECTS

- **Equilibrium Temperature Distribution in Objects** (Mathematics II - Course Project) Simulated the approximate temperature distribution of a body at equilibrium, given boundary conditions.
- **Newspaper Scraper**: Scraping news articles and comments as a part of research of Prof. Jaison Manjaly, IIT Gandhinagar.
- **Technical Council Website Developer**, IIT Gandhinagar.

ACADEMIC ACHIEVEMENTS

- Recipient of **Dean's List** : 2017-18 Sem I, Sem II, 2018-19 Sem III, awarded by IIT Gandhinagar
- Recipient of **Zonal Award** in IMO 2017
- Recipient of **Excellence in Academics**, awarded by St. Patricks High School: 2015
- Recipient of **Academic Topper**, awarded by St. Patricks High School : 2013, 2014 and 2015

SKILL SUMMARY

Programming Languages:	proficient in Python and C. Familiar with C++.
Software Skills:	well versed with Xilinx Vivado (Verilog), GDB, \LaTeX , Git, Autodesk Inventor. Familiar with LTspice, Keil(ARM 7TDMI).
Development:	well versed with HTML, CSS, JavaScript, JQuery, Bootstrap, Django, NodeJS, ExpressJS. Familiar with VueJS, ReactJS.
Languages:	English, Hindi, Kannada, Telugu.

POSITIONS OF RESPONSIBILITY

- Problem Setter, Organiser and Web Developer, HackRush 2018, Annual Intra College Hackathon.
- Event Organiser and Problem setter of D'code, the competitive programming contest in Amalthea'18, Technical Summit of IIT Gandhinagar.
- Problem Setter, Codefry, Intra college competitive programming contest, organised by coding club at IIT Gandhinagar.
- Core Member, Metis, Coding Club at IIT Gandhinagar.
- Member, Competitive Programming Group at IIT Gandhinagar.

KEY COURSES UNDERTAKEN

Computer Science:	Computing (Python), Digital Systems, DSA I + Lab, DSA II*, Discrete Mathematics*, Computer Organization and Architecture*
Mathematics:	Real and Complex Analysis, Vector Calculus, Linear Algebra, Differential Equations, Probability and Statistics*, Numerical Methods*

* to be completed by May 2019

EXTRA-CURRICULAR ACTIVITIES

- Competitive Programming - Active on Codechef, HackerEarth.
- Attended Google Tech Inter Connect 2018, at Google Hyderabad.
- Organized workshops on Competitive Programming, Web development and Web Scraping.