

SCHOLASTIC ACHIEVEMENTS

- Achieved an **All India Rank of 510** among **1,60,000 candidates** in JEE Advanced 2017 [2017]
- Secured **99.75** percentile in JEE Main 2017 among **1.2 million candidates** [2017]
- Awarded the **Scholarship for Higher Education** under **INSPIRE** for being in **top 1%** of CISCE board [2016]
- Recipient of the prestigious **Kishore Vaigyanik Protsahan Yojana (KVPY) fellowship** (SA stream) conducted by the Indian Institute of Science(IISc) securing a 98.87% percentile [2014]
- Secured admission to the **Indian Statistical Institute** for B.Math after clearing two written tests and one interview round, admission was extended only to 35 students in the general category [2016]
- Attended the **Vijyoshi camp** at IISER Kolkata organized by IISc Bangalore [2015]
- Qualified stage 1 **National Talent Search Examination** conducted by the Government of India [2012]
- Attained **first** position out of **4000 students** in inter campus class tenth comparative examinations for ICSE boards conducted by the school and got felicitated for it [2013]
- Pursuing **Minor degree in Computer Science and Engineering** [Present]

KEY PROJECTS

EmoTV | INSTITUTE TECHNICAL SUMMER PROJECT

[Summer 2018]

Project under Web and Coding Club

- Implemented **speech to text** operation on python using the **OpenCV** library and **Google API** with a regular mic as an input audio source for storing the speech as a string variable
- Executed **text to speech** operation on python by using the **OpenCV** library and **'gtts'** API to convert a string into a corresponding mp3 file and then playing it
- Developed a Visual Studio app for the Microsoft Kinect sensor to **track skeletal movements** and give a simple GUI response to certain joint movements. Integrated the app with kinect speech library to **record audio** as well
- Utilized **Keras API** to classify human expressions of the test dataset into 'happy' and 'sad', achieving a **60%** accuracy, and then playing music or printing a message using OpenCV and python libraries as a response

MACHINE LEARNING | SUMMER OF SCIENCE

[Summer 2018]

Project under Maths and Physics club

- Explored the fundamentals of **supervised** and **unsupervised** Machine Learning along with certain related concepts on statistics (like **risk minimization** in Bias Variance tradeoff) and documented the progress in a report
- Studied the **feature extraction** technique 'Principal Component Analysis' (PCA) and **classification algorithms** like Adaboost, Perceptron and Decision Trees along with a summarized reading of **Markov models**

FAQ BOT | SUMMER OF CODE

[Summer 2018]

Project under Web and Coding Club

- Compiled a vast list of **intents** and **entities** on IBM Watson Assistant to mimic the interface of the desired chatbot
- Implemented a chat interface and incorporated it with **Flask-WTF** extension to serve it and create a **frontend** that will take the user query from the webpage textbox and send it as a string to the NLU engine
- Performed **web scraping** using the library 'Beautiful Soup' to parse data from HTML, integrated the front end with the back end and incorporated the **NLU engine** to run the bot on localhost

DISPLAYING A SMILEY ON 8*8 LED MATRIX

[April 2018]

Course project under Prof. Subhananda Chakrabarti

- Designed a **high frequency clock** using timer 555 IC in astable mode to feed a **modulo 8 counter**
- Devised a circuit using logic gates to power up specific row LEDs by evaluating corresponding boolean expressions
- Triggered each LED column successively at the high clock frequency through a **3 to 8 decoder** prompted by the counter output to create a smiley pattern on the matrix

PONG

[December 2017]

Self Project

- Effected an interactive pong/air-hockey game in Python on CodeSkulptor using the 'simplegui' library and **event handlers** for mouse clicks, key presses and keyboard inputs
- Developed code for modelling the ball's **collisions and reflections**, score keeping, **velocity control** for the ball and paddles, canvas (play area) construction and randomization of the ball's motion at the start of each round

OBSTACLE AVOIDER ROBOT

[April 2015]

Personal Initiative

- Attached **IR** sensors sideways and a **UV** sensor on the front side of the robot chasis for **proximity and distance sensing** implemented on Arduino UNO microcontroller
- Programmed Arduino to control the DC motor rotation(for turning away) when an obstacle comes sufficiently close
- Implemented **remote control** for varying the motor speed or turning it off, using **IR Receiver and IR Receiver Module**

POSITION OF RESPONSIBILITY

Coordinator | Media and Public Relations | Student Alumni Relations Cell (SARC) [Present]

- Organized the telephonic marathon event **Phonathon**, that witnessed a 111% and 200% appreciation in volunteer and alumni participation respectively. Cordially interacted with over **600 alumni** and refined the existing database
- Accountable for co-authoring and penning down the institute monthly newsletter '**The Knowledge Tree**' published by the Dean-ACR office that has a global readership reach of **over 50,000 alumni**
- Responsible for increasing the **publicity reach**, ensuring sufficient **media coverage** and supervising events for the SARC flagship fest '**Alumination**', attended by **over 200 alumni and 1000 plus students**
- Developed the **web content** illustrating and publicizing the events under Alumination and **ideated the basic layout** for the official website in conjunction with the design team.
- Authored multiple articles for the '**SARC Blog**' showcasing the inspirational accomplishments of various alumni
- Compiled and prepared interview questionnaires for the initiative '**Know Your Alumni**' directed at revealing the viewpoints and motivational life experiences of the alumni
- Volunteered for organizing and managing the **Alumni Reunions** of more than **10** batches, attended by **over 800 alumni** of the institute, in association with the Dean ACR office

Coordinator | Horizons | Mood Indigo 2018, IIT Bombay

[December 2018]

Asia's largest College Cultural festival with a 150,000+ footfall

- Supervised a team of **5+ organizers** and administered the implementation of timeline, crowd handling, infrastructure, backstage and food requirements for multiple stage performances, also coordinating with the stage console engineers
- Functioned as a **Point of Contact** for **two international artist teams** and ensured the redress of all their grievances
- Prepared **anchor scripts** and formulated performance descriptions for the **official Mood Indigo website**
- Negotiated with several musical instrument and beverage vendors for night-arena and oversaw the event execution

Coordinator | Technoholix | Techfest 2018, IIT Bombay

[Sep-Dec 2018]

Asia's largest Science and Technology festival with a 150,000+ footfall

- Assisted in execution of **Cyclothron-2018**, a Techfest fitness initiative witnessing the participation of over **1500 people**
- Headed a team of **six organizers** to satisfy the **pre-event requisites** including that for the headliner concert featuring the world's best DJ and Launch Pad artists with a crowd attendance of **15,000 people**
- Acted as the **Point of Contact** for performing artist crews from **two** different countries of **5 people each**, being responsible for successful execution of their timelines, travel, food, accommodation and infrastructure requirements

TECHNICAL SKILLS

- **Programming Languages/Libraries and IDEs:** C/C++, Java, Python, HTML, OpenCV, Arduino, Flask
- **Software:** AutoCAD, Solid Works, MATLAB/Octave, Latex, GNUPlot, Xcircuit, NGSpice, Audacity, Visual Studio

EXTRA-CURRICULAR ACTIVITIES

- Dedicated **over 80 hours** for community service under **National Service Scheme(NSS)** which involved recording audio-books and editing them using Audacity, hence providing access of literature to the blind and the illiterate
- Contributed actively on the **online educational platform** Toppr, resolving JEE level doubts of over **300 students**.
- Participated for **squash** in the in-semester camp **Prarambh** organized by the Sports Council of IIT Bombay.
- Bagged the **first** team position in '**Physics Bazinga**' competition organized by the Maths and Physics Club, IIT Bombay
- Interacted with retired law representatives from over 100 countries as a part of the '**15th International Conference of Chief Justices of the World**' organized by City Montessori School
- Participated and directed a short film for the event '**Freshiezza**' organized by the Silver Screen and IIT-BBC.