Sai Kalyan Siddanatham
Computer Science & Engineering
Indian Institute of Technology Bombay

160050095
UG Second Year
Male
DOB: 30/07/1999

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2018	8.86
Intermediate/+2	Board Of Intermediate Education Telangana	Sri Chaitanya Narayana Institution	2016	9.86
Matriculation	Board Of Secondary Education Andhra Pradesh	Sri Chaitanya Techno School	2014	10.00

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank 42** in **IIT JEE Advanced 2016** among **200 thousand** candidates *(2016)*
- Secured **All India Rank 72** in **JEE Main 2016 (B.Tech)** among **1.5 million** candidates *(2016)*
- Secured **99.99 percentile** in **JEE Main 2016 (B.Arch)** among over **1.5 million** candidates *(2016)*
- Secured **State Rank 13** in **TS-EAMCET** among **150,000** candidates organised under Ministry of Human Resource Development, **Government of Telangana** *(2016)*
- Secured **State Rank 46** in **AP-EAMCET** among **200,000** candidates organised under Ministry of Human Resource Development, **Government of AndhraPradesh** *(2016)*
- Scored **420/450** in **BIT-SAT** conducted by **Birla Institute Of Technology and Sciences**,Pilani *(2016)*

OLYMPIADS AND SCHOLARSHIPS

- Awarded **Gold Medal and Certificate of merit** for being among the **top 35** students in Selection cum Training camp for International Junior Science Olympiad **(IJSO)** *(2014)*
- Awarded **Kishore Vaigyanik Protsahan Yojana** Fellowship by **Indian Institute of Sciences (IISC) Department of Science and Technology, Government of India** *(2015)*
- Awarded **NTSS** (National Talent Search Scholarship) by the **NCERT** under the Ministry of Human Resource Development, **Government of India** *(2012)*
- Amongst the **top 1 %** students in **each** of the Indian National Olympiad of Physics, Chemistry Astronomy conducted by Indian Association of Physics Teachers **(IAPT)** *(2014,2016,2016)*
- Secured **State Rank 22,21** in Science Talent Search Examination in consecutive years conducted by **Dr A.S.Rao Awards** Council Andhrapradesh *(2011,2012)*
- Secured **All India Rank 17** in NMTC organised by Association of Mathematics Teachers of India *(2011)*

COURSES UNDERTAKEN

Computer Science	Abstractions and Paradigms + Lab, Data Structures and Algorithms + Lab*, Discrete Structures*, Software Systems Lab*, Digital Logic Design + Lab**, Computer Networks + Lab**, Design and Analysis of Algorithm**, Foundation of Machine Learning**, Logic for Computer Science**, Data Analysis and Interpretation*, Computer Programming and Utilization + Lab
Mathematics	Calculus, Linear Algebra, Differential Equations
Others	Introduction to Electrical and Electronics Circuits*, Biology, Quantum Physics and application, Basics of Electricity and Magnetism

*to be completed by November 2017 | **to be completed by April 2018

PROJECTS

Course Networking *Autumn 2017*
Prof. Kavi Arya(course project) *Software Systems Lab*

- Creating a social networking site for courses with a user friendly interface for instructors, students with a platform for Discussions, Timely notifications for important events, Feedback forms and Display of timetables.
- Designing a Website for the students to check content of available courses and notifications related to them
- Developing a **Django** based **web app** for the instructors to add courses, submission deadlines, feedback forms
- Added an intuitive interface for Q/A forum helping students and instructors participate in them

Autonomous Follow Bot Summer 2017
Institute Technical Summer Project *IIT Bombay*

- Developed a Self driving bot which follows a moving bot of our interest by maintaining a specific range of distance between them.
- Used OPEN CV, picamera and numpy libraries for implementing image processing with python
- Programmed Raspberry Pi for controlling the bot and used VNC to establish connection between bot and laptop
- Implemented PWM and PID for having smooth control over the movement of bot.

Advanced Tower Of Hanoi *Spring 2017*
Prof. Amitabha Sanyal(course project) *Abstractions and Paradigms in Programming*

- Implemented the classic Tower of Hanoi using Racket
- The user can choose the number of discs to play with
- Implemented a Hint button that gives the next possible best move inorder to finish the game in least moves from given state
- Used Breadth First Search Algorithm for solving from any possible given state to the final state with least moves

2048 *Spring 2017*
Prof. Amitabha Sanyal(course project) *Abstractons and Paradigms in Programming*

- Made the game 2048 a single-player sliding block puzzle using Racket
- Animated the movement of the tiles between every move by keeping 16 intermediate frames
- The user can choose the size of the square grid from 4x4 to 10x10

CryptoSuite *Autumn 2016*
Prof. Bernard Menezes(course project) *Computer Programming and Utilsation*

- Developed various functionalities to encrypt and decrypt messages
- Implemented Modulo Exponentiation, Modulo Addition, Modulo Multiplication
- Implemented Inverse Modulo, Discrete Logarithm, ECs over prime fields
- Used BIG INTEGER class to allow functioning of large inputs

Other Minor-Projects

- **Mini-Language Parser**
  Prof. Amitabha Sanyal(course project) *Abstractons and Paradigms in Programming-Spring 2017*
    - Developed a simple parser using Racket Programming Language.
    - Implemented functions to parse numbers,aphabets,variables,terms,expressions and assignment operator from a string using a parsed tree

- **Particle Motion Simulator**
  Prof. Amitabha Sanyal(course project) *Abstractons and Paradigms in Programming-Spring 2017*
    - Implemented simulator for 2D motion of particle under mutual gravitational force using trees in Racket Programming Language

Technical Skills

Programming	C++, C, Java, Bash, Python, Racket, SWI-Prolog
Web Development	HTML, CSS, JavaScript, Django, PHP
Softwares	GNU Plot, MATLAB, GNU Make, Git, Android Studio, Doxygen, Django, LaTeX, AutoCAD

Extracurriculars

- Pursuing Minor in **Design Engineering**
- Organiser at **Techfest**, **Mood Indigo** IIT Bombay Asia's largest Technology and Cultural Festivals
- Successfully attended **Vijyoshi Camp-2015** for the KVPY scholars held in IISC-Bangalore aimed to inculcate research skills in the students
- Contributed to **Vikas** divison of **National Service Scheme** at IIT Bombay.
- Completed viii levels in **Abacus** and **Mental Arithematic Programme**
- Built a radio controlled plane during **RC Plane Competition** organised by Aeromodelling Club IIT Bombay in 2016
- Completed a monthlong basic **Video Editing** course conducted by cultural council,IIT Bombay