Akkapaka Saikiran
Computer Science & Engineering
Indian Institute of Technology Bombay

180050005
UG Second Year
Male
DOB: 09-11-2000

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2020	9.35
Intermediate/+2	HSC	PACE Junior Science College Powai	2018	90.69
Matriculation	CBSE	Kendriya Vidyalaya IIT Powai	2016	10.00

Pursuing *minor* in **Industrial Design Centre**

Academic Achievements

- Secured All India Rank 304 in IIT JEE Mains 2018 among over 1.3 million candidates *2018*
- Secured All India Rank 665 in IIT JEE Advanced 2018 out of more than 150 thousand candidates *2018*
- Recipient of the Kishore Vaigyanik Protsahan Yojana (**KVPY**) Fellowship, twice *2017, 2018*
- Awarded the prestigious National Talent Search Examination **(NTSE)** scholarship by NCERT *2015*
- Cleared National Standard Examination in Chemistry (NSEC) being in the **top 1%** of the participants and qualified for Indian National Chemistry Olympiad (**INChO**) *2018*
- Felicitated by the **Rotary Club** for academic excellence in 10th grade board exams *2015*
- Stood first in National Science Talent Search Examination (NSTSE), National Science Olympiad (NSO), and International Mathematics Olympiad (IMO) at the school level *2015*

Projects

- **Proofreading Rewriter** *Ongoing*
  Instructor : Amitabha Sanyal *Course Project*
  · Developing an **online NLP tool** which corrects grammar mistakes and rewrites sentences
  · Exploring the breadth of **parse trees** using **NLTK** (Natural Language Tool Kit) and online APIs

- **Summer of Science** *Summer 2019*
  Guide : Kusumit Ghoderao *Summer Project*
  · Successfully completed a two-month long reading project on **Game Theory** exploring the formal notions of strategy and equilibria with seweral examples and case studies
  · The highlight was a detailed exposition on the **Game of Trust** created by developer Nicky Case

- **Battleships** *Spring 2019*
  Instructor : Prof. Amitabha Sanyal *Course Project*
  · Created a 1 and 2 player implementation of the board game Battleships with a **Graphical User Interface** to respond to various kinds of interactive events with the user
  · Incorporated Object Oriented Programming and designed a **probabilistic algorithm** to determine the best move of the computer with improved algorithms for higher difficulty setting

- **Model Interpreter** *Spring 2019*
  Instructor : Prof. Amitabha Sanyal *Course Project*
  · Developed an interpreter for a subset of Racket using the **environmental model** of execution
  · Learnt about execution frames in the aforementioned **multi-paradigm** programming language

- **Cipher Decryption** *Spring 2019*
  Instructor : Prof. Amitabha Sanyal *Course Project*
  · Implemented a decryption algorithm using a strategy called **etai**, which finds possible substitutions for four of the more frequently occurring letters of the alphabet using libraries in Racket
  · Ran heuristics like **Dictionary Closure** and **Secret Word Enumeration** on the input data using the proposed substitution key to decipher it successfully

- **Decision Trees** *Spring 2019*
  Instructor : Prof. Amitabha Sanyal *Course Project*
  · Constructed a Decision Tree using a given categorical training data set in csv format
  · Ran tests on a data set using this decision tree and returned the most probable value of an attribute
  · Optimised the selection of the next optimal node by calculating the Entropy Difference between successive nodes

Interests

Discrete Structures	Functional Programming
Mystery Novels	Carnatic Classical Music

Programming Skills

Languages	C++, Python, Racket, MATLAB, Prolog, Bash, JavaScript
Tools	Git, LaTeX, HTML, CSS, Make, CMake, Matplotlib, AutoCAD, Solidworks

Courses Undertaken

Computer Science	Computer Programming and Utilization, Abstractions and Paradigms in Programming, Data Analysis and Interpretation*, Data Structures and Algorithms*, Software and Systems Lab*, Discrete Structures*, Digital Logic Design**, Design and Analysis of Algorithms**, Logic for Computer Science**, Computer Networks**
Mathematics	Calculus, Linear Algebra, Differential Equations
Other	Introduction to Design, Quantum Physics and application, Basics of Electricity and Magnetism, Biology, Inorganic and Organic Chemistry, Physical Chemistry,

***to be completed by April 2020*
**to be completed by December 2019*

Positions of Responsibility

- **Teaching Assistant** *Summer 2019*
  · Selected to a team of 15 students as a Teaching Assistant for **ELIT** (English Language Improvement and Training), a group of IITB students dedicated towards teaching basic English with the help of interactive activities and quality supplementary resources
  · Taught **UG** and **PG** students from various backgrounds having a varied set of difficulties
  · Helped create an informal environment where students can develop confidence in English speaking

Extracurricular Activities

- Represented IIT Bombay in **Aquatics** at the **Inter IIT** Sports Meet 2018 at Guwahati. *2018*
- Participated in **Boeing Aeromodeling** competition at Techfest 2018 as part of the team securing **second position** in IITB's RC Plane competition. *2018*
- Successfully finished **Swimathon**, IITB's annual swim marathon covering **17** kms in **12** hrs *2019*
- Attended **Vijyoshi**, the annual national science camp which serves as a forum for interactions between bright young students and leading researchers in the fields of Science and Mathematics *2017*
- Helped organize Mood Indigo, Asia's largest annual College Cultural Fest, in particular was the quiz-master for **Spell Bound**, its spell bee competition *2018*
- Participated in the KVS **National Sports Meet** in swimming representing Mumbai region for three consecutive years by finishing in the **top two** in regionals *2013, 2014, 2015*
- Bagged trophies in **mridangam** (a south indian percussion instrument) competitions at music and fine arts societies like Rasika Ranjani Sabha and Mulund Fine Arts *2017, 2018*