Bale Teja Rama Chandra Murthy | **200050020**
Computer Science & Engineering | **B.Tech.**
Indian Institute of Technology Bombay | **Gender: Male**
DOB: 4/28/2002

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2024	8.19
Intermediate	Board of Intermediate Education, Andhra Pradesh (BIEAP)	SRI CHAITANYA CO-EDUCATIONAL JUNIOR COLLEGE	2020	97.80%
Matriculation	Board of Secondary Education, Andhra Pradesh	SRI CHAITANYA HIGH SCHOOL	2018	10

Pursuing **Honors** in **Computer Science and Engineering**

Scholastic Achievements

- Secured **All India Rank 263** in JEE Advanced amongst 1,50,838 eligible candidates *(2020)*
- Secured **All India Rank 185**, with a percentile score of **99.98** in JEE Mains out of 1.02 million candidates *(2020)*
- Among India's top 800 students qualified in **NSEC**(National Standard Examination in Chemistry) and selected for **INChO** (Indian National Chemistry Olympiad) *(2019)*
- Cleared **RMO** and qualified to appear in the Indian National **Mathematics** Olympiad(**INMO**) *(2018)*
- Scored **352 out 450** in the entrance test of Birla Institute of Technology and Science(**BITSAT**) *(2020)*
- Secured **39**th rank in **STSE**(Science Talent Search Exam) *(2018)*

Key Projects

Float Moodle | *Course Project* *(Autumn 2021)*

Guide: Prof. Amitabha Sanyal, IIT Bombay

- Developed a **Modular Object Oriented Dynamic Learning Environment** as a part of a team of 4 people.
- Used **Django** as the backend framework and **HTML** & **CSS** to implement the frontend and **PostgreSQL** database.
- Included several features such as assignments, lectures, calendar, to-do list, course statistics, user dashboard.
- Designed **Course Discussion forum, Analytics Page** and **Private Chat** using **redis server**

Github Profiles | *Course Project* *(September'21)*

Guide: Prof. Amitabha Sanyal, IIT Bombay

- Built a **Web Application** using **Django** framework where users can share their **GitHub** account's statistics, **update** their own profile and also **explore** the profiles of other registered users
- Used **GitHub APIs** and **Python's requests** module to obtain users' data according to their GitHub usernames
- Used Django's **models** and class based **generic views** for rendering the **HTML** and organising the data
- Used **HTML** & **CSS** to implement the frontend and **Heroku** to deploy our application

Study Planner App | *Course Project* *(Autumn 2021)*

Guide: Prof. Amitabha Sanyal, IIT Bombay

- Built an Android App using **Android Studio** that keeps track of assignments, lectures and exam schedules.
- Added Navigation Menu and tabbed fragments to display different plans and events with a recycler view.
- Designed a feature to add/remove study plans saved in the local database and displayed on the dashboard.
- Implemented a calendar module giving a succinct view of the tasks for any selected day and marking the days on which events are set with a summary of the count of different types of events for a selected date.

Digit Recognizer | *Self Project (Machine Learning)* *(Summer 2022)*

- Built a digit recognizer using neural networks which takes a 28×28 pixels image and predicts the digit.
- Built a Neural Network model using front propagation and backpropagation techniques.
- The input layer contains 784 nodes and 1 hidden layer with 10 nodes and the final layer with 10 nodes.

P2P Application | *Course Project* *(April'22)*

Guide: Prof. Kameswari Chebrolu, Department of Computer Science & Engineering

- Implemented a Peer-to-Peer network for downloading and searching required files up to a specified neighbour depth.
- Used Socket Programming in C++ to set up tcp connections and Client-Server model for downloading files and used MD5 hash for detecting errors.

Other Projects

Gaia data Analysis | *Krittika Project* *(July'22 - Present)*
Guide: Himanshu Verma, Krittika - The Astronomy Club

- Using a basic ADQL query to extract a sample of data from the Gaia server
- Selecting a class of sources from the whole Gaia catalog and Building up interesting distributions of various physical quantities and characteristics of the sources.
- Analyzing the data using Python to study the various properties of the stellar abundance of the Milky Way

15 Puzzle | *Course Assignment* *(May'21)*
Guide: Prof. Rushikesh Joshi, Department of Computer Science & Engineering

- Developed the classic **15-puzzle** game using **Object-Oriented Programming** and **FLTK graphics** package
- A randomly initialised puzzle will be displayed and a mouse click will make the specific box to move.

Mandelbrot Zoom | *Course Project* *(Autumn 2021)*
Guide: Prof. Bhaskaran Raman

- Used **SFML** library in C++ to create an animation of **mandelbrot plot**
- Explored the **recursive detail** in the boundary of the **Mandelbrot Set** at increasing magnification
- The project revolves around the implementation of theory learnt in Data Structures and Algorithms Course

Bash AutoGrader | *Course Project* *(April'21)*
Guide: Prof. Amitabha Sanyal

- Developed an auto grader using **Bash Scripting** which **downloads** files from given link, **organises** them according the each student's roll number and then **evaluates** the output of submitted C++ program files by the student
- Marks are allotted to each student based on the number of test cases passed and copied to .csv file which contain a rollnumber/name of student and marks in each row

Technical Skills

Programming	C/C++, Python, Java, JavaScript, HTML, CSS, Django
Software	Git, LaTeX, MATLAB, Android Studio
Python Libraries	SciPy, NumPy, Pandas, Matplotlib, Astroquery

Key Courses Undertaken

Computer Science	Computer Programming and Utilisation, Abstractions and Paradigms in Programming, Data Structures and Algorithms, Data Analysis and Interpretation, Software Systems Lab, Discrete Structures, Design and Analysis of Algorithms, Digital Logic Design and Computer Architecture, Logic for Computer Science, Computer Networks, Applied Algorithms, Operating Systems*, Automata Theory*, Artificial Intelligence and Machine Learning*
Others	Calculus, Linear Algebra, Quantum Physics and its applications, Introduction to Electrical and Electronics Circuits

**To be completed by November'22*

Position of Responsibility

Coordinator | Events Department | *Abhyuday, IIT Bombay* *(June'21-Dec'21)*
A visionary social body channelizing the youth through impactful social initiatives

- Coordinated in the successful conduct of Blood Donation Camp which had the potential to save 948 lives
- Spearhead ideation and Execution of Freshers' Orientation targeting 1000+ UG first year students of IIT Bombay
- Ideating, planning and executing 5+ events and competitions for IIT Bombay's Annual Socio-Weekend

Extracurricular Activities

- Contributed 80+ hrs for community service under **Green Campus, NSS** IITB *(2020-2021)*
- Executed the **Powai Lake** Cleanup with **UNICEF** involving Larsen & Toubro and 300+ volunteers *(June 2022)*
- Studied **Sanskrit** for two years in Intermediate level and received **A1** grade *(2020)*
- Participated in **Valorant** tournament conducted by **CSEA, IIT Bombay** *(March 2021)*
- Participated in **Call of Duty** tournament conducted by **CSEA, IIT Bombay** *(July 2022)*