	Aditya Khambete		23B3315	
	Mathematics		B.S.	
	Indian Institute of Technology Bombay		Gender: Male	
			DOB: 31/03/2006	

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2027	9.22
Intermediate	CBSE	Kendriya Vidyalaya No.2 Indore	2023	98.00%
Matriculation	CBSE	Kendriya Vidyalaya No.2 Indore	2021	98.00%

SCHOLASTIC ACHIEVEMENTS

- Currently holding Department Rank **4** in BS Maths batch of 27' with a CPI of **9.22** after 2 semesters *(2023)*
- Secured All India Rank **1182** in Joint Entrance Examination (Advanced) 2023 out of **1.9 lakh** candidates *(2023)*
- Scored **99.76** percentile in Joint Entrance Examination (Main) 2023 out of **11.1 lakh** candidates *(2023)*
- Awarded the prestigious **KVPY Fellowship** with AIR **883** out of **50,000** applicants in SA stream *(2022)*
- Secured All India Rank 73 in IAT (IISER Aptitude Test) 2023 out of **40,000** applicants *(2023)*
- Awarded admission in prestigious **Chennai Mathematical Institute** with **Shreeram Scholarship**. *(2023)*
- Awarded certificate of merit for being in the state **top 1%** in **National Standard Exammination in Physics** *(2022)*
- Selected to appear for **Indian National Astronomy Olympiad** *twice* on basis of performance in NSEA *('21,'22)*
- Secured position in **KVS Top 1.5% merit list** (Science Stream) for **excetional performance** in AISSCE *(2023)*

KEY PROJECTS AND ACTIVITIES

End to End Score Prediction Model | WiDS | Analytics Club *(Dec '23 - Jan '24)*
- Developed a score prediction model of T20 Cricket Matches based on dataset of T20I games from 2005-2021
- Utilized Python libraries such as NumPy, Pandas, Matplotlib, and Seaborn for **Exploratory Data Analysis**
- Achieved an accuracy of **91%** on the test dataset using **Random Forest Regressor**

Time Series Analysis | Summer of Quant | Quant Community *(June'24 - Jul'24)*
- Studied **Financial Time Series Analysis**, focusing on **ARIMA**, **GARCH**, and machine learning techniques.
- Analyzed the **limitations of LSTMs** and emphasized their use in trend prediction for financial markets.
- Awarded a **Top Performer Certificate** for outstanding performance in the course.

Group Theory | Summer of Science | Maths and Physics Club *(May'24 - July'24)*
- Conducted an extensive **literature survey** and completed a **27-page** report on Group Theory fundamentals.
- Studied the fundamental theorems of Group Theory and explored their applications across different fields.
- Created a video lecture summarizing key concepts and findings from the study.

Team Member: Animation Subsystem | Team ANYmations | Institute Technical Council *(April'24 - Present)*
- Working with the team, actively helping to create **space-based animations** using **Blender**.
- One among those responsible for creating the **detailed 3D models** required for the various team projects.
- Currently working on developing an accurate and visually compelling simulation of **Eclipses** using Blender.

Machine Learning | Learners' Space | Web and Coding Club *(Aug'23 - Nov'23)*
- Completed comprehensive **Machine Learning course** covering regression, classifiers, and neural networks.
- Worked with **NumPy**, **Pandas**, **Matplotlib**, **TensorFlow/PyTorch**, and explored **YOLOv8** and **CNNs**.
- Successfully completed the **Siamese Networks** project for facial recognition as the final assignment.

Riemann's Zeta Function | Guide: Prof Sudhir R Ghorpade | Course Project *(Oct'23 - Nov'23)*
- Investigated the properties of the **Riemann Zeta Function** and its significance in number theory
- Studied the **analytic continuation** of the function and its relation with the prime numbers
- Presented a **seminar** on the topic and discussed the **Riemann Hypothesis** and its implications

Kerala School of Mathematics | Guide: Prof Madhusudan Manjunath | Course Project *(Oct'23 - Nov'23)*
- Explored the contributions of the **Kerala School of Mathematics** to the Present Day Mathematics
- Studied the works of **Madhava, Nilakantha, and Jyeshtadeva** and their contributions to Calculus
- Presented a **seminar** on the topic and discussed the significance of the findings

Managerial Analysis of Accenture | Guide: Prof Ashish Pandey | Course Project *(Feb'24-Mar'24)*
- Analyzed **Accenture** from a managerial perspective, focusing on its business model and structure.
- Delivered a video presentation on the strategic management approaches used by Accenture.

Analysis of 'CRED' as a startup | Guide: Prof Anuradha Narasimhan | Course Project *(Feb'24-Mar'24)*
- Analyzed the business model of **CRED** during its early startup phase to understand its growth dynamics.
- Studied the key elements, including the **Target Audience**, **Revenue Model**, and **Marketing Strategies**.

POSITION OF RESPONSIBILITY

System Admin | Hostel 16 *(Jan'24 - May'24)*
- Managed web and LAN-related issues for over 1000 students living in Hostel 16 during one semester.
- Diagnosed and resolved network connectivity problems for hostel residents to ensure seamless access.
- Delivered technical support and maintained essential IT services for the hostel to enhance user experience.

Teaching Assistant | MA 105 (Calculus) *(Aug'24 - Present)*
- Conducting weekly sessions for a batch of 40 freshmen students in the UG Calculus course (MA105).
- Assisting students with course material, providing clarification and support during sessions.
- Facilitating problem-solving discussions to enhance students' understanding of calculus concepts.

College Ambassador Mentor | Techfest IIT Bombay *(July'24 - Present)*
- Collaborated in a team of **50** to publicize Techfest events to over **3000** colleges globally.
- Managed the College Ambassador Program with **7000+ CAs** across schools and colleges nationwide.
- Compiled a database of schools and colleges nationwide, driving **10,000+** participants for Tech-norion.

VOLUNTEER WORK

Volunteer | **Summer Camp 2024** | Shiksha Sambal Programme *(May'24 - June'24)*
- Taught Mathematics to **12th-grade students** at a summer camp in Udaipur, emphasizing on core concepts.
- Helped students in increasing their score at the end of the camp by **30%** of that at the beginning of the camp.

Tutorial Services Centre | MA 105- Calculus | Student Support Services *(Sep'24)*
- Taught a Revision Lecture for Calculus accessible to **1400** undergraduate freshmen before their midsem exams.
- Delivered focused lessons to enhance understanding of essential calculus concepts relevant for the exam.

KEY COURSES

Mathematics	Calculus, Mathematics and Its History,An Introduction to Mathematical Concepts, Linear Algebra and Differential Equations, Linear Algebra*, Basic Algebra*, Real Analysis*, Probability I*
Computer Science	Computer Programming and Utilization, Game Theory and Algorithmic Mechanism Design*
Miscellaneous	Chemistry Lab, Makerspace, Physics Lab, Introduction to Innovation & Entrepreneurship, Introduction to Management, Introduction to Classical and Quantum Physics, Economics*

* To be completed by Nov 2024

TECHNICAL SKILLS

Languages	C++, Python, HTML/CSS
Tools, Libraries	Numpy, Matplotlib, Tensorflow LaTeX, GeoGebra, Desmos
Software	Blender, MS Office, Visual Studio Code

EXTRACURRICULAR ACTIVITIES

- Represented KVS State **twice** in **National level** in **NCSC**, 2018 at Shiksha o' Anusandhan, Bhubaneswar and 2021 held Virtually by Gujarat Council on Science and Technology (GUJCOST), Gandhinagar.
- Represented KVS-Bhopal Region at the **KVS National level** of 48th edition of Jawaharlal Nehru National Science, Mathematics and Environment Exhibition (JNNSMEE) held virtually by KVS-Delhi Region. *(2020)*
- Awarded the **Inspire Award** (Manak) by the Department of Science and Technology, Govt. of India. *(2019)*
- Served as the **School Captain** of Kendriya Vidyalaya No.2 Indore for the academic session 2022-23. *(2022)*
- Completed AlgoNinjas, a 2-month long **competitive programming** course conducted by the Web and Coding club IIT Bombay, achieving a satisfactory performance in the contests over a period of the course. *(Jul'24 - Aug'24)*
- Secured **First Runner-Up** position representing Kendriya Vidyalaya No.2 Indore among 600+ schools in Canara Bank Knowledge Champ Quiz held in Ravindra Natyagrah in Indore. *(2019)*
- Successfully completed **2 semester long** training program in **Dramatics** under NOCS-1 and NOCS-2 courses compulsary for freshmen at IIT Bombay *(Sep'23 - Apr'24)*
- Performed StandUp Comedy in front of **Audience of over 100** at the Laughter Riots Competition conducted by the **Comedy Cons** Club IIT Bombay. *(Oct'23)*
- Participated in a EnB Buzz, a Business Model & Pitching Competition conducted by E-Cell IIT Bombay. *(Oct'23)*
- Participated in the **Simon Marais Mathematics Competition**, a prestigious international mathematics competition for undergraduate students from Asia-Pacific region. *(Oct'23)*