



EDUCATIONAL QUALIFICATIONS

Examination	University	Institute	Year	CPI/%
Graduation	IIT Madras	IIT Madras	2023	9.71
Intermediate/+2	CBSE	Army Public School, Kirkee	2019	97.6
Matriculation	ICSE	The Bishops Co-Ed School, Kalyaninagar, Pune	2017	97.8

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank 539** in **JEE (Advanced)** out of **200,000+** candidates (2019)
- Secured **All India Rank 421** in **JEE (Mains)** out of **1.5 million+** candidates (2019)
- Recipient of the prestigious **KVPY (Kishore Vaigyanik Protasahan Yojana)** scholarship in the SX stream with an **All India Rank 421** out of **50,000+** students (2019)
- Among the **top 30** students from Maharashtra to clear the **NSEC**, hence qualifying for **INChO**, as a part of the **International Olympiads** selection procedure (2019)
- Among the **top 30** students from Maharashtra to clear the **NSEP**, hence qualifying for **INPhO**, as a part of the **International Olympiads** selection procedure (2019)
- School topper in **ICSE Class 10** board exams (2017)
- School topper in **CBSE Class 12** board exams (2019)

RESEARCH EXPERIENCE

Deep Learning for Extreme Multilabel Classification (XMC)

(June 2021-Present)

Summer Research Internship: Aalto University

- Extreme Multi-label text Classification (XMC) is a task of finding the most relevant labels for an input text from a large label set. Explored and reviewed multiple papers on short-text Extreme Classification where the input text is limited to only around 15 words on average.
- Studied the use of different deep learning architectures and clustering methods to correctly annotate short text while use as also attempting to lower the amount of computation required.

Recommender Systems for Video Games on Amazon

(May 2020-Jul 2020)

Guide: Aniket Patil — vRhythms Software Pvt Ltd:

- Worked in a team of 4 to **analyse recommendation algorithms** to infer which performed well on various ranking metrics and performed **sentiment analysis** on the reviews for products.
- Used real world **Amazon Video Games dataset**. Analysed **Collaborative Filtering, Matrix Factorization, Auto-encoders and Hybrid models**.
- Ranking metrics used were **Average Reciprocal Hit Rate, Diversity and Novelty**.

KEY PROJECTS

Software Engineer | Electronics and Software Subsystem

(Apr 2020-Present)

Team Anveshak, IIT Madras' Mars Rover Team

- Implemented algorithms for **autonomous navigation and path planning** (Bug2, Vector Field Histogram, Dynamic Window Approach), and **object detection** (spiral searching manoeuvre, YOLOv3) on a **ROS Based Framework** for a rover capable of withstanding Mars-like conditions and carrying out scientific tasks effectively.
- Tested approaches to the above tasks extensively using **Gazebo** and **RViz**

OTHER PROJECTS

NBA Player/Team Analysis

(Aug 2020)

- Used **Neural Networks** and **ELO** based models to predict Power Rankings for teams and the Most Valuable Players in the league

TECHNICAL SKILLS

Programming Languages	Python, C
Web Development	HTML5, CSS3
Data Analysis	MATLAB, Octave, NumPy, Pandas, Matplotlib, Keras, TensorFlow, PyTorch
Other Libraries and Tools	ROS, Eagle, Arduino, L ^A T _E X

KEY COURSES

Electrical Engineering	Microprocessor Theory and Lab, Digital Systems, Signals and Systems, Digital Signal Processing, Applied Programming Lab, Information Theory*, Control Engineering*
Computer Science	Numerical Methods in C, Reinforcement Learning*
Mathematics	Multivariable Calculus, Differential Equations, Series and Matrices, Probability, Statistics and Stochastic Processes
Miscellaneous MOOCs	Game Theory, Principles of Economics PH125.3x:Data Science:Probability (HarvardX), Machine Learning (Stanford on Coursera), Divide and Conquer, Sorting and Searching, Randomized Algorithms(Stanford on Coursera), Graph Search, Shortest Paths and Data Structures(Stanford on Coursera) (*To be completed by Nov 2021)

POSITIONS OF RESPONSIBILITY

Associate Manager | Entrepreneurship Cell | IIT Madras

(Oct 2019-Apr 2020)

- Handled the social media pages of ECell, IIT Madras and generated publicity for upcoming events.
- Organised a **press conference** for the publicity of **E-Summit**, India's biggest student run Entrepreneurship Conference.
- As part of the D-Well team, organised a campaign for **Digital Wellness** that included surveying SME's on their use of digital technology and the assistance they needed.

Correspondent | The Fifth Estate | IIT Madras

(Apr 2020-Present)

Research and write articles for the student newspaper regarding student life, success achieved by institute alumni in various avenues and opinion pieces.

Coordinator | Quiz Club | IIT Madras

(Apr 2020-June 2021)

Regularly **participate in and conduct** quizzes both inside and outside the institute as a part of one of the most successful teams in the college quizzing circuit.

EXTRACURRICULAR ACTIVITIES

- Mentor at **Avanti Fellows**
Provided quality **mentorship** as a part of Avanti Fellows to **underprivileged students** in Jawahar Navodaya Vidyalaya Puducherry with regard to their academics and entrance exam preparation. Both have cleared JEE Main-2020 with **>99 percentile**.
(2019-20)
- Elected as **House Captain** by teachers on the basis of overall academic and extracurricular performance. Led the House in sports and cultural events throughout the year.
(2016-17)
- Placed **Runner-Up** in the Bishop's Sesquicentennial Inter-School Quiz among teams from across the country (2015)
- Shortlisted among the top 20 students in the country for Indian contingent selection for **World Schools Debating Championship**
(2016)