

Aryamann Mastana | AE19B029

Indian Institute of Technology Madras



EDUCATION

Program	Institution	%/CGPA	Year of completion
Dual Degree in Aerospace Engineering	Indian Institute of Technology Madras, Chennai.	8.31/10	2024
Grade XII (CBSE)	Ahmedabad Public School International, Ahmedabad.	94.8%	2019
Grade X (CBSE)	Rachana School, Shahibaug, Ahmedabad.	10/10	2017

SCHOLASTIC ACHIEVEMENTS

- Qualified in **National Talent Search Examination (NTSE)** by Govt. of India. (2016)
- Secured 41st All India Rank (93% marks) in **National Level Science Talent Search Examination (NSTSE)** by Unified Council. (2017)
- Placed first 1st in Mathematics Quiz amongst 12 teams in the city. (2016)

RELEVANT COURSE WORK

- Computational Programming in C
- Programming & Data Structures
- Aerospace Structural Mechanics
- Propulsion & Combustion Systems
- Probability & Stochastic Process
- Differential Equations
- Computational Fluid Dynamics
- Basic Electrical Engineering

SKILLS

- Web Development – HTML, CSS, JavaScript, Bootstrap.
- Programming – C, C++, Java, Python, MATLAB.
- 3D Modelling – AutoCAD, Fusion 360, Unity, SolidWorks.
- Graphic Design – Adobe Photoshop, Adobe Illustrator.
- Mathematics – Linear Algebra, Probability, Differential Equations.

PROJECTS

Portfolio Website (2 Weeks)

- Built a responsive portfolio website to showcase my projects using native HTML, CSS & JavaScript.
- Focused on aesthetics and styling using CSS to make it look attractive & modern.
- Added some functionality using JavaScript, including a unique hamburger menu.

Link: <https://aryamann-mastana-portfolio.netlify.app/index.html>

Personal Blog/News Website (3 Weeks)

- Built a responsive blog/news website similar to Medium, using native HTML, CSS & JavaScript.
- Used CSS to style & give it a relatively modern look.
- Used JavaScript to add features such as theme change icon, search bar and contact form.

Link: <https://newsflash101.netlify.app/?#>

Static Test Pad for Testing Rocket Motors & 1U CubeSat Design for Space Missions (4 + 4 weeks)

- Team projects (with 5 group members), done as part of an internship with STAR Labs.
- Worked as System Engineer to lead the team & design a rocket motor STP and a 1U CubeSat mission.
- Created the mechanical design of all components in Fusion 360.
- Designed avionics components & circuits using Proteus & Arduino to run simulations.
- Generated PCB designs using Eagle EDA.

Integration of PSLV & Agnikul's Agnibaan (2 Weeks)

- Design Project (with 2 group members), done as part of an Autodesk Design Challenge.
- Devised an approach to integrate PSLV with Agnibaan as strap-on boosters to increase payload capacity.
- Used Fusion 360 to create & assemble all vehicle components and create assembly animations.
- Worked on interfacial details, connecting mechanisms and did a reliability analysis.

CO-CURRICULAR ACTIVITIES

- Took part in spelling bees & writing competitions in both school & college.
 - Placed 2nd in a Hindi Essay Writing Competition in college.
 - Placed 1st in an English Writing Competition conducted by Tata.
 - Qualified for semi-finals of Classmate Spelling Bee for 3 consecutive years.
- Took part in many quizzes as a student on various topics such as mathematics, finance, geography, mythology.
 - Placed 1st in a Math Quiz amongst multiple schools in Ahmedabad.
 - Participated in quizzes organized by RBI, INCA, INTACH.

Link to all relevant proofs:

<https://drive.google.com/drive/u/0/folders/1cGJYMbFeKBu8uPARXTkzmK92U8B0zUPm>