

MAHAJAN ABHIRAJ | 22MA10033

MATHEMATICS AND COMPUTING (B.S.4Y)



EDUCATION			
Year	Degree/Exam	Institute	CGPA/Marks
2026	4YRS B.S	IIT Kharagpur	9.14 / 10
2022	Board Of Intermediate Education	Sri Chaitanya Jr College	97.8%
2020	Board Of Secondary Education	Vijaya Ratna High School	10 / 10

INTERNSHIPS

Manufacturing Execution System Application | Kadapala Agrotech

Jun 2024-July 2024

- (Engineered a software solution to optimize and streamline the production and packaging operations of the organization)
- Contributed as a frontend developer creating responsive user interfaces using the MERN stack for seamless user experience
- Developed modules for **ingredients inventory system**, userdata access, and manager settings, ensuring efficient navigation
- Utilized **ReactJS** to create dynamic and reusable components, improving the maintainability and scalability of the application Designed and added more functionalities such as role-based login, file storage system and automated file generation
- Utilized Amazon API and Qmart API to fetch orders and successfully implemented the generation of unique batch codes

PROJECTS

Movies Streaming Site | Open Soft | General Championship

Mar 2024-Apr 2024

(Collaborated closely with a team to develop a movie streaming site featuring a robust video player and subscription functionality) Contributed as a backend developer maintaining the server-side logic to support various functionalities of the application.

- Created REST API for multiple schemas, enabling efficient retrieval to support the dynamic content of the movies website
- Utilized MongoDB for management of movies, user data, and subscription details, ensuring fast and reliable data access
- Implemented JWT tokens for secure login, bcrypt for password hashing and fuzzy search for efficeint search capabilities

Treasure Hunt Game | Team Project | Game Development

Oct 2023-Dec 2023

(Deployed a role-playing game, overseeing the development phases to ensure a high-quality and immersive gameplay)

- Developed a complete treasure hunt game using Unity incorporating engaging gameplay mechanics and enveloping world
- Implemented a third-person controller, combat and archery system to provide diverse and dynamic player interactions
- Designed and animated characters with smooth and responsive animations to enhance the visual and real-time experience
- Engineered an interactive system and AI follow mechanics for intelligent NPC behavior and dialogue to enrich gameplay

COURSEWORK INFORMATION

Mathematics: Advanced Calculus | Linear Algebra | Stochastic Process and Applications | Probability and Statistics | Apllied Computational Methods | Numerical Solutions of Partial and ODE | Real Analysis | Modern Algebra | Transform Calculus **Computer Science**: Theory of Computation | Programming and Data Structures | Combinatorics and Graph Theory **Others**: Econometric Analysis | Basic Electronics | Basic Engineering Mechanics | Electrical Technology and Applications

SKILLS AND EXPERTISE

Programming Languages **Softwares and Utilities Libraries and Frameworks** C | C++ | Unity C# | HTML | CSS | Javascript | HLSL Shaders in Unity | Python Visual Studio Code | MongoDB | Postman | Git | Unity | Blender | AutoCAD C++ STL | ReactJS | Express.js | Node.js | Axios | JWT | xslx | Bootstrap

POSITIONS OF RESPONSIBILITY

Senior Game Developer | Computer Graphics Society

- Mentored junior developers, providing guidance and support to help them enhance their coding, design, and debugging skills
- Played a key role in conducting a game development workshop for 100+ attendees, focusing on optimal techniques and tools
 Led a team to build several RPG projects, integrating complex game mechanics and ensuring high-quality, immersive features
- Supervised a team of 5 developers in the creation of a game, ensuring the successful completion of the game project

AWARDS AND ACHIEVEMENTS

- Secured an All India Rank 2155 (CRL) in the Joint Entrance Examination (JEE) Advanced out of 1,60,000 registered students
- Secured an All India Rank **2686** (CRL) in the Joint Entrance Examination (JEE) Mains out of 12,00,000 registered students.
- Secured a rank among the top **0.5%** of over 1,80,000 registered students in the Telangana EAMCET 2022.
- Selected under the merit list for KVPY (Kishore Vaigyanik Protsahan Yojana) all over india among 5 lakh registered students.
- Rated Specialist at competitive programming platform Codeforces under the handle mahajanabhiraj9
- Achieved a global rank of 83 out of 15,000 participants in CodeChef Starters 134, a competitive programming contest
- Achieved a global rank of 1707 out of 40,000 participants in Codeforces Round 946, a competitive programming contest

EXTRA CURRICULAR ACTIVITIES

- Social Service: Part of a unit of NSS volunteers that taught underprivilaged students in a school nearby our institute once a week and were also engaged in conducting an environmental survey and cleaning activities
- Science Olympiad: Achieved 3 gold medals in the IMO, NSO and IGKO as part of the 2020 SOF exams
- Sports: Bagged second position in the Cricket intra-hall tournament at Vidya Sagar Hall Of Residence in December 2023
- Cultural: Contributed to the construction of an intricate illumination display for Nehru Hall Of Residence for over a month