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	C | C++ | Unity C# | HTML | CSS | Javascript | HLSL Shaders in Unity | Python
Softwares and Utilities	Visual Studio Code | MongoDB | Postman | Git | Unity | Blender | AutoCAD
Libraries and Frameworks	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