Manisha Choudhary

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EDUCATION

Indian Institute of Technology Delhi — July'19-May'23
B.Tech in Production and Industrial Engineering

Bhartiya Public School, Sikar — July'17-May'18
Class XII - Rajasthan Board of Secondary Education

TECHNICAL SKILLS

Programming & Libraries: C++, PHP, FastAPI, JavaScript, ReactJS, Python, SQL, AngularJS, Git, MongoDB
Relevant Coursework: Data Structures & Algorithms, Probability & Stochastics, Linear Algebra, Operating Systems

EXPERIENCE

Appy Pie — June'23 - April'24
Software Engineer — Noida, India

Quiz Feature
- Developed seamless user input integration with **OpenAI** API, reducing processing time by **23%** enhancing question accuracy **25%**
- Conducted thorough testing & optimization, analyzing over **5000** generated questions to fine-tune algorithms and enhance relevance
- Collaborated with a **team of 4** to integrate the quiz feature into a platform using **AI App Maker API** for development

Business Dashboard
- Engineered a dynamic UI/UX component rendering algorithm for the dashboard, tailored to user details and product specifications
- Implemented robust code sanitization against payload injection vulnerabilities that improved application security audit results by **10%**
- Enhancement of reseller platform functionalities and addition of new features for admin resulted in a **17% more** user signups

Common Payment
- Implemented Paystack endpoints in a team of 3 for identity verification & payment processing, improving online payments

MockBoard EduTech Private Limited — May'22 - June'22
Software Engineering Intern — Delhi, India
- Developed RESTful APIs in a team of 4 using **PHP** and MongoDB to fetch data from the database and showcase it on the front end
- Integrated Razorpay payment gateway microservice on the website for accepting online payments, improving **C2P by over 20%**

PROJECTS

Dynamic Memory Allocation — September'20
- Developed a dynamic memory allocator prototype that ensures swift and efficient handling of program memory request
- Designed a **best-fit** method to carry out allocation and free operations as efficiently as possible while minimizing fragmentation
- Implemented a balanced binary search tree (**AVL tree**) to efficiently implement the strategy along with a defragmenter

Simulating Individual Social Interactions — January'21
- Designed and implemented a graph-based model for individual social interactions, using edges to represent social connections
- Performed in-depth analysis using graph traversal algorithms **DFS**, optimizing the identification of independent social clusters
- Analyzed several statistical properties including the average number of connections between individuals and the density of clusters

Image Enhancement Toolkit — November'19
- Programmed an image editor in Python to remove noise from images to make it more useful for computer vision application
- Implemented **Pixel averaging, Edge Detection, Path of Least energy**, Black & white conversion for PGM format Images
- Performed image convolution technique with 3x3 kernel for edge detection and Spatial filtering algorithm for noise removal

Restaurant Order Management Software — March'19
- Designed simulation framework for precise insights into customer wait times with integrated queue and kitchen constraints
- Implemented **AVL Tree**, **priority queue**, and mutable array to efficiently manage data and reduce processing time by 25%
- Designed a real-time data engine, managing griddle status and customer wait times, achieving a **30%** improvement in efficiency

Tree-based Organizational Hierarchy Database System — March'21
- Implemented a sound structure to enhance the decision-making process and strategic effectiveness for exchanging information
- Designed a real-time data engine, managing griddle status customer wait times with tailored data structures, boosting efficiency

EXTRA CURRICULAR ACTIVITIES

Alumni Association Coordinator || Student Affairs Council, IIT Delhi	July'2021 - May'2022
Student Mentor || Board for Student Welfare, IIT Delhi	Sep'2021- May'2022
Hospitality Coordinator, Sportech'22 || Board for Sports Activities, IIT Delhi	July'2021- May'2022