

# MANISHA CHOUDHARY

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## EXPERIENCE

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### Appy Pie

June 2023 - Present

Software Engineer

*Business Dashboard*

- Directed the UI/UX overhaul of the dashboard, utilizing HTML, JavaScript, and AngularJS to implement functional enhancements.
- Collaborated closely with development team to seamlessly integrate frontend updates with backend, utilizing PHP and JavaScript
- Implemented robust code sanitization techniques in PHP and JavaScript to fortify against SQL injection vulnerabilities.
- Enhanced admin panel functionality for administrators and revamped the reseller platform for both administrators and users.

#### *Implemented Quiz Feature*

- Designed a user input form for quiz application, integrating with the GroqCloud API to fetch quiz data in real-time.
- Securely stored data in MongoDB and used AI App Maker API to create a new quiz feature.

#### *Common Payment*

- Successfully integrated the Paystack payment gateway, leveraging PHP, to facilitate seamless online payment processes.

### MockBoard EduTech Private Limited.

May 2022 - Jun 2022

Software Engineering Intern

- Developed RESTful APIs using PHP and MongoDB to fetch data from the database and showcase it on the front end.
- Integrated Razorpay payment gateway microservice on the company website for accepting online payments; API integration

## PROJECTS

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### Dynamic Memory Allocation

September 2020 - November 2020

- Developed a prototype for a dynamic memory allocator that handles program memory requests quickly and effectively
- 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 2021

- Modelled individual social interactions using a graph by considering edges as social relations between the individuals
- Performed several graph traversal algorithms, including **DFS** to optimize the calculation of independent clusters of individuals
- Analyzed several statistical properties including the average number of connections between individuals and density of clusters

### Image Enhancement Toolkit

November 2019

- 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 2019

- Simulated restaurant order-taking process with constraints on queue/kitchen size to output queries on **customer wait time**
- Simulation generates the current state of the griddle, total and **average wait-time** for the customers in the restaurant
- Implemented AVL Tree, Priority queue, and mutable array from scratch to store current state and arrival information of the customer

### Tree-based Organizational Hierarchy Database System

March 2021

- Implemented a sound structure to enhance the decision-making process and strategic effectiveness for exchanging information
- Programmed a tree-based data structure using AVL Trees from scratch with methods available for hiring and firing employees

## EDUCATION

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### Indian Institute of Technology Delhi

July 2019 – May 2023

Production and Industrial Engineering

CGPA: 6.8/10.00

### Bhartiya Public School, Sikar

April 2017 - March 2018

Class XII Rajasthan Board of Secondary Education

84%

## TECHNICAL SKILLS

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**Programming and Libraries:** Python3, C++, PHP, Javascript, HTML, SQL, AngularJS, LaTeX, Git, Mongo, Mysql

**Relevant Courseworks:** Data Structures & Algorithms, Probability & Stochastics, Linear Algebra, Operating Systems