

Gaurav Arora

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SUMMARY

Highly motivated and detail-oriented computer science graduate seeking an entry-level software engineering position. Offering a solid foundation in programming languages, database management, and project development, with a passion for problem-solving and delivering efficient solutions.

EDUCATION

Pennsylvania State University, State College, PA

Aug 2023

Bachelor of Science — Computer Science

PROJECTS

Pennsylvania State University, State College, PA

Storage System for Cryptocurrency (C language)

May 2023

The project involves implementing a secure and efficient storage system for a cryptocurrency startup using 16 military-grade hard disks configured as JBOD (Just a Bunch of Disks).

- Implemented a module to handle JBOD operations, encoding commands, translating addresses, and seeking blocks and disks.
- Designed and developed a caching system to minimize disk access time, featuring dynamic allocation, cache lookup, and cache creation and destruction functionality.
- Created network communication functions for reading and writing data to a server, facilitating remote manipulation of JBOD systems.

Hotel Management Web Application (MySQL, PHP, HTML)

Jan 2022

Developed a web-based interface for hotel reservations management.

- Integrated functionalities for real-time reservation CRUD operations within a MySQL database.
- Implemented robust database practices, including the use of primary keys, to maintain data integrity and ensure consistent record management.

Room Scheduling application (JAVA Swing, SQLite)

Dec 2021

Developed a Room Scheduling application using Java Swing to facilitate the reservation of rooms in an educational institution. The application integrates with SQLite for backend storage.

- Developed a GUI using Java Swing, incorporating elements like dropdown lists, buttons, labels, and tabs.
- Integrated SQLite as a backend database using JDBC, showcasing database design and SQL query skills.
- Implemented features like waitlisting, showcasing problem-solving and user-experience considerations.
- Collaborated with potential end-users (faculty) to gather requirements and feedback.
- Gained proficiency in Java programming and object-oriented design principles.

SKILLS

C, C++, Java, Python, HTML, CSS, MySQL, PHP, GDB, DBMS, git, GitHub

LEADERSHIP

Global Lion Mentor (Penn State)

- Mentored first-year international students in foundational computer science concepts, with a focus on "Introduction to Programming Techniques" using C++.
- Designed and facilitated hands-on coding workshops, covering topics such as data structures, algorithms, and object-oriented programming.
- Utilized modern development tools, including IDEs like Visual Studio and version control systems like Git, to provide students with industry-relevant experiences.
- Fostered a supportive learning environment by encouraging collaborative problem-solving and peer code reviews.