Bhavyam Punj

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Aspiring Java Developer with a strong foundation in Java programming and Data Structures and Algorithms (DSA). Passionate about building scalable and efficient applications, with a deep understanding of object-oriented programming principles. Familiar with core Java concepts such as multithreading, collections, exception handling, and JDBC. Enthusiastic about writing clean, maintainable code and continuously improving problem-solving skills. Eager to contribute to innovative projects, learn advanced frameworks like Spring Boot, and grow as a backend developer in the Java ecosystem.

Education

Chitkara University, Bachelors in Computer Science and Engineering — August 2020 – August 2024

- GPA: 9.27/10.0

Experience

Intern, Translab Technologies - Bengaluru, India — October 2023 - March 2024

- Reduced time to render user buddy lists by 75% by implementing a prediction algorithm
- Integrated iChat with Spotlight Search by creating a tool to extract metadata from saved chat transcripts and provide metadata to a system-wide search database
- Redesigned chat file format and implemented backward compatibility for search

ML Engineer, Translab Technologies – Bengaluru, India — April 2024 – January 2025

- Designed a UI for the VS open file switcher (Ctrl-Tab) and extended it to tool windows
- Created a service to provide gradient across VS and VS add-ins, optimizing its performance via caching
- Built an app to compute the similarity of all methods in a codebase, reducing the time from $\mathcal{O}(n^2)$ to $\mathcal{O}(n \log n)$
- Created a test case generation tool that creates random XML docs from XML Schema
- Automated the extraction and processing of large datasets from legacy systems using SQL and Perl scripts

Projects

1. To-Do List

- Developed a Java-based console application that allows users to add, view, complete, and remove tasks from a to-do list. The tasks are stored in a dynamic list, and users can interact with the program via a menu-driven interface.
- Implemented Object-Oriented Programming (OOP) principles with a Task class and a ToDoList class, ensuring modularity and reusability.
- Enhanced functionality by saving and loading tasks to a file, enabling persistent storage across sessions.
- Tools Used: Java, Collections Framework (ArrayList), File Handling, Scanner for User Input

2. Holographic Sight Testing

- Developed an automated testing platform which test the holographic sight based on certain tests and approve whether it is suitable to be mounted on the guns.
- Tools Used: Python, OpenCV, NumPy

3. Knowledge Graph Chatbot

- Developed a streamlit app which takes metadata in form of JSON as an input from the user and then creates graph based on the relationships between the tables and columns in that JSON data and then a chatbot is present which answers the questions user asks related to the data.
- Tools Used: Python, Streamlit, Transformers, Graph RAG, Ollama

Technologies

Languages: Java, C++, Python

Technologies: Pandas, NumPY, OpenCV, GraphRAG, VS Code