JALIGAMA ABHIRAM

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Summary

Dedicated and results-driven Software Engineer with a passion for data science and full-stack development. Strong expertise in Java, Python, and machine learning. Enthusiastic about applying analytical skills and problem-solving abilities to develop innovative solutions. Eager to learn and explore new technologies, staying updated with industry trends to enhance software development and data-driven decision-making. Committed to continuous improvement and leveraging cutting-edge tools to build efficient and scalable applications.

Technical Skills

- **Programming Languages:** Python (Pandas, NumPy, Matplotlib) , Java
- **Web Technologies:** HTML, CSS
- **Database Management:** SQL
- **Tools:** Tableau, Machine learning, vs code, Eclipse, Excel & Google Sheets
- **Technologies/Frameworks:** GitHub

Soft Skills

- Adaptability
- Team Player
- Creativity
- Presentation skills

Certifications

- Java Full Stack Development, Hitbullseye, July-2023
- SQL for Data Science, Great Learning, October-2023
- Unsupervised Learning, Coursera, November- 2023
- Machine Learning and Deep Learning, Kaggle, March- 2024

Education

Batchelor's of Technology

Computer Science and Engineering May2024

Lovely Professional University – Punjab

Relevant Courses: Machine Learning, Computer Vision, Database Management, Fundamentals of Programming.

Projects

1. Generative Vision Revival | Python-Deep Learning models, PIL

- Developed and fine-tuned **GAN models** for generating **high-resolution images** from **low-quality inputs**.
- Implemented **CNN architectures** to enhance image quality through advanced processing techniques.
- Utilized **EDSR** and **LAPSRN** models to train the model.

Outcome: Successfully revived and enhanced degraded images with effectiveness of GAN and CNN integration with **0.957 SSIM**.

2. Project Title: Library Management System | Java-Spring boot

- Developed a comprehensive **Library management system** using **Java** as the primary language.
- Established a **secure and efficient system** for updating and retrieving book information.
- Enabled administrators to make **data-driven decisions** for optimizing library Resources.

Outcome: Established a **secure and reliable** system, reducing errors and increasing the accuracy of library records.

3. Project Title: Gym Pose Estimation | Python

- Developed a **Python-based gym pose estimation** model which is used to analyze gym exercises and provide real-time feedback for improved form and technique.
- Prepared data pipelines for data validation, data transformation & data pre-processing.
- Used supervised learning technique such as **KNN** to estimate the Gym pose.

Outcome: Achieved **96.7%** of **accuracy** using KNN model.

4. Volume Control using Hand Gestures | Python-Media Pipe, Open cv

- Developed a real-time **gesture-based volume control system** using **Media Pipe** and **OpenCV**.
- Utilized **Media Pipe Hand Tracking API** for precise **gesture recognition** and real-time tracking.
- Integrated **OpenCV** for real-time video processing and gesture recognition.

Outcome: Achieved **95% accuracy** in real-time, hands-free volume control using hand gestures with Media Pipe and OpenCV.