ARCHITA SHRIVASTAVA

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EDUCATION

Vellore Institute of Technology   **November 2022- May 2026**
B.Tech in Computer Science, CGPA: 8.40   Bhopal, India
Delhi Public School Kolar Road   **March 2021- May 2022**
Class XII (CBSE)   Bhopal, India
Delhi Public School Kolar Road   **March 2019- May 2020**
Class X (CBSE)   Bhopal, India

TECHNICAL SKILLS

Machine Learning (Supervised & Unsupervised Techniques, Model Evaluation, Hyperparameter Tuning), TensorFlow, OpenCV, AWS, Streamlit, Flask, Python, SQL, C++

EXPERIENCE

Data Science and Analytics Intern | Zidio Development   **January 2025 - February 2025**
- Engineered automated ETL workflows in Python that streamlined raw data processing, cutting preparation time by 70% and ensuring consistently clean datasets for downstream analytics.
- Formulated and tested predictive models to uncover player performance drivers, improving the accuracy of match outcome forecasts to ~88% and supporting better decision-making for strategy teams.
- Constructed interactive dashboards and trend visualizations, enabling leadership to monitor patterns in real time and evaluate player performance against historical benchmarks.
- Delivered comprehensive reports that translated technical insights into actionable recommendations, simplifying complex data into clear narratives for non-technical stakeholders.

PROJECTS

Smart Vision System for Real-Time Vehicle Analytics   **May 2025 - June 2025**
- Implemented a YOLOv8-based detection system for 12+ vehicle classes and 767+ images, achieving 86.8% mAP, 92.2% precision, and 81.1% recall—including low-light robustness.
- Deployed a Streamlit + OpenCV dashboard for real-time vehicle counts and monitoring, designed with enterprise-style analytics.
- Automated reporting pipelines that summarized vehicle counts, peak hours, and anomalies, assisting policy makers and transport authorities in planning.
- Enhanced model efficiency by tuning inference speed and accuracy, ensuring smooth deployment on resource-
- constrained environments.

VitalAI: Scalable Healthcare Prediction API   **September 2024 - December 2024**
- Engineered end-to-end predictive models for Diabetes, Heart Disease, and Blood Sugar using XGBoost, SVM, and CatBoost, achieving ROC-AUC up to 0.88 and ensuring interpretability with LIME and SHAP.
- Applied advanced feature engineering (BMI–Pulse Pressure ratios, polynomial & interaction terms) and EDA with correlation analysis, raising model F1 scores by 15–20% over baseline.
- Designed modular ML pipelines with preprocessing (imputation, scaling, encoding), serialized via joblib, ensuring scalable and reproducible training-to-inference workflows.
- Launched models as RESTful APIs using FastAPI, enabling real-time healthcare predictions and seamless integration into enterprise digital health platforms.

Intelligent Conversational System on PDF Files   **March 2024 - April 2024**
- Developed an NLP-driven semantic search system using LangChain, Faiss, and PyPDF2 to extract and interpret information from unstructured PDF documents.
- Reduced manual document review time by over 60% through semantic search and context-aware retrieval mechanisms, improving productivity for research teams.
- Built an interactive Streamlit + Gemini Q&A interface, enabling users to query 10+ page documents conversationally and extract insights in real time.
- Streamlined reporting and document analysis by converting unstructured information into accessible knowledge, enabling better strategic decision-making.

CERTIFICATIONS

AWS Solutions Architect - Associate Certification (Ethnus)   **April 2025**
- Demonstrating proficiency in designing secure, scalable, and cost-optimized cloud architectures and hands-on experience with AWS services, including EC2, VPC, Route 53, IAM (users, groups, policies), CloudWatch, and RDS.

Getting Started with Artificial Intelligence (IBM)   **April 2025**
- Gained foundational knowledge in AI, understanding core AI concepts, machine learning principles, and practical applications.

EXTRA CURRICULARS

Social Work Intern | Kshitiksha Foundation   **June 2023 - July 2023**
- Contributed to social and environmental causes by planting trees on barren land, distributing food to underprivileged children, and caring for stray animals.