DISHA SAWANT

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EDUCATION

- Masters in Computer Engineering | San Diego State University | **CGPA : 3.5** 2024 - 2026
- Bachelors in Computer Engineering | Mumbai University | **CGPA : 3.7** 2018 - 2022

SELECTED EXPERIENCE

AI Application Engineering Intern |Ema Unlimited | Mountain View, CA ***Jun 25 - Aug 25***

- **MSIG:** Improved operational efficiency by 90% implementing AI-powered insurance claims triage for Mitsui Sumitomo Insurance Group. Automated claims intake using Extraction/Classification agents with LLMs.
- **Ticket Management:** Streamlined Zendesk automation with robust workflows for contact creation, agent mapping, and ticket updates. Developed flexible logic for incomplete data scenarios. Reduced manual effort by 82%.
- **Expense Management:** Designed Expensify workflows for user/policy/expense creation with modular architecture supporting real-world business operations. Ensured policy-to-expense integrity and automated test data generation.
- **HR Management:** Architected Ashby API recruiting workflows with intelligent filtering, job-to-application mapping, and bulk resume extraction. Connected to Google Drive for a fully automated recruiting loop, reducing 75% turnaround time.

Data Engineer | Image Computers | Mumbai, India ***Dec 22 - Aug 24***

- **ETL Pipeline Development:** Architected and developed scalable ETL processes using Apache Airflow to handle 50,000+ daily records. Ensured seamless data integration across enterprise systems with 99.5% data accuracy.
- **Predictive Maintenance:** Engineered ML models using Scikit-learn and XGBoost to anticipate hardware failures. Achieved 17% increase in system uptime and 40% reduction in unplanned downtime, saving $50K+ annually.
- **Real-time Dashboard:** Developed interactive analytics dashboard using Angular, D3.js, and Tableau. Enabled stakeholders to monitor KPIs in real-time, improving decision-making efficiency by 20%.

PROJECTS

AI in Marketing: Customer Segmentation with K-Means & Autoencoders - Link to Project

Built an intelligent customer segmentation system to enable targeted marketing strategies by analyzing 2,823 sales records. Applied K-Means clustering with the Elbow Method to identify 5 distinct customer groups based on purchase quantity, price preferences, and seasonal activity. Enhanced segmentation by implementing a deep Autoencoder to compress 37 features into an 8-dimensional latent space, refining clusters to 3 actionable customer segments. Visualized results using PCA-reduced 3D scatter plots for marketing insights.***Skills: TensorFlow, k-means clustering, PCA, Autoencoders***

AI in Business: Credit Card Default Prediction - Link to Project

Built an end-to-end machine learning pipeline to predict credit card payment defaults, analyzing 30,000 customer records with an imbalanced dataset of 22% defaulters. Applied One-Hot Encoding for categorical variables and MinMax scaling for numerical features before training an XGBoost classifier optimized through GridSearchCV. Deployed the production model on AWS SageMaker with a REST API endpoint, achieving 82% accuracy in identifying high-risk customers based on payment history, credit limits, and demographics. ***Skills: Python · XGBoost · AWS SageMaker · Scikit-Learn***

Emotion AI: Facial Analysis System - Link to Project

Developed a dual-model deep learning system combining facial keypoint detection with emotion classification, deployed via TensorFlow Serving for real-time inference. The first model uses a custom ResNet architecture trained on 2,140 augmented images to predict 30 coordinates across 15 facial landmarks, achieving 84% accuracy. The second model employs ResNet18 to classify 24,568 facial images into 5 emotions—anger, disgust, sadness, happiness, and surprise—reaching 87% accuracy with extensive data augmentation. ***Skills: ResNet, TensorFlow Serving, OpenCV***

RESEARCH

Published a paper in the *International Journal of Advanced Research in Science, Communication, and Technology* on Creative AI applications. It covers Image Colorization, Neural Style Transfer, and Deep Dream Video Creation, showcasing AI's innovative impact on visual content. Access the paper here: https://ijarsct.co.in/A3319.pdf