SURYAPRABHA PJ

+91 8754959057 | suryaprabhapj1965@gmail.com | Portfolio | GitHub | LinkedIn

SUMMARY

An Analytical and inventive Computer Science undergraduate specializing in machine learning, computer vision, and data analytics. Experienced in designing AI-powered assistive tools and dashboards using Machine Learning, Predictive Modeling, and Data Visualization. Passionate about transforming raw data into actionable insights that enhance accessibility and decision-making.

EDUCATION

Ramco Institute of Technology, Rajapalayam Sep 2023 – Jul 2027
B.E in Computer Science and Engineering – 8.13 CGPA

TECHNICAL SKILLS

Programming Languages: Python, R, C, Java, JavaScript
Libraries & Frameworks: NumPy, Pandas, Scikit-learn, TensorFlow, Flask
Data Visualization & Tools: Excel, Power BI, Matplotlib, Seaborn, Streamlit, Plotly
Computer Vision: OpenCV, Mediapipe, dlib, Real-Time Processing
Databases & Web: MySQL, MongoDB, HTML, CSS

PROJECTS

AI Personal Stylist: GitHub | *OpenCV, MediaPipe, Scikit-learn, Flask, HTML, CSS* **Jun 2025**

- Developed a web-based Personal Styling Assistant using Flask to provide data-driven clothing and style recommendations.
- Engineered a CV pipeline that automatically extracted 5+ unique features from user images, significantly enhancing personalization.
- Leveraged MediaPipe Pose Estimation and Feature Engineering to calculate the torso-to-leg ratio based on 10+ skeletal landmarks for comprehensive body proportion analysis.

Eye Gaze Controlled Assistive Technology: GitHub | *OpenCV, Mediapipe, Blynk API, Arduino* **Mar 2025**

- Designed and engineered an Assistive Eye Gaze Controller, achieving 95% real-time accuracy in translating eye movements into wheelchair commands using Blynk IoT API.
- Constructed a computer vision pipeline leveraging MediaPipe Face Mesh and Iris landmarks to track gaze position with sub-pixel precision, improving tracking accuracy by 30%.
- Implemented a control loop processing 30+ FPS real-time video frames to achieve command recognition latency under 2 seconds for mobility control.

Phishing Detection: GitHub | *NLP, Scikit-learn, imblearn, Re, Flask, HTML, CSS* **Dec 2024**

- Developed a web-based Personal Styling Assistant using Flask to provide data-driven clothing and style recommendations.
- Performed Exploratory Data Analysis and Feature Engineering on 22 distinct URL features to train the predictive model.
- Mitigated dataset class imbalance using the SMOTE technique to ensure robust model performance across both phishing and benign URL classes.

ACHIEVEMENTS

- **Best First-Year Team – Codher'24 Hackathon:** Awarded Best First-Year Team by ACM-CEG, Anna University, solved real-time problem statements with a team of 3 and received a cash prize of Rs.1500.
- **GeeksforGeeks:** Secured a score of 363 and achieved Institution Rank 18.

OPEN DATA CONTRIBUTIONS

- **Clothing Sales Dataset: Kaggle**
  Created and published an AI-generated retail sales dataset on Kaggle simulating real-world clothing transactions for analytics, forecasting, and visualization experiments.
- **Fashion & Color Recommendation Dataset: Kaggle**
  Developed and released an AI-generated fashion recommendation dataset integrating color theory, body proportions, and style features for machine learning and fashion analytics applications.

COURSE WORKS

- Data Analytics Essentials - Cisco Networking Academy
- AI and ML learning path - Infosys Springboard