

MAYANK PUVVALA

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Education

SRM Institute of Technology, Chennai

9.07 CGPA, B.Tech Computer Science, Sept 2021 - June 2025

Skills

Programming Languages: Python, C++, SQL

ML & Data Science: PyTorch, Scikit-learn, Excel, PowerBI, NLTK, Transformers

Dev-Tools & Technologies: Git/GitHub, VSCode, Jupyter, Google Colab, AWS, Apache Spark

Experience

Seyche Technologies, New Delhi

May 2023 - July 2023

Data Analyst & Machine Learning Intern

- Applied advanced data validation techniques such as outlier detection, missing data imputation, and duplicate removal, **achieving 94.9% segmentation accuracy**.
- Optimized data pipelines through automated ingestion, parallel processing, and real-time streaming, reducing error rates by 15%.
- Programmed quality control measures like data audits and version control, boosting data consistency by 20% and minimizing discrepancies by 15% through routine reviews and checks.
- Enhanced model performance by 30% using deep learning methods (DNN, CNN) with hyperparameter tuning (via RandomSearchCV) and cross-validation, achieving a **F1-score of 0.92**

Projects

Watcher: (Exam Proctoring System) Computer Vision, ML, DL

[GitHub](#)

- Developed an advanced proctoring system capable of detecting unauthorized behaviors such as impersonation, talking, and the presence of phones, ensuring robust exam security and minimizing false identifications by 40%.
- Integrated **MobileNetV2** for facial recognition, pnp for accurate face tracking, and **MediaPipe**'s face mesh for 3D landmark detection. Custom-trained a YOLOv11 model to detect human count and phone presence in real-time.
- Achieved a **30% increase in recall for phone usage detection**, enabling a secure and uninterrupted testing environment for over 10+ candidates, and incorporated a user-friendly interface for supervisors

Lok Sabha Elections 2024 Data Analysis and Visualization

[GitHub](#)

- Stacked Random Forest and XGBoost models, achieving a **15% improvement in accuracy**, effectively forecasting winning parties based on historical data and sentiment analysis.
- Deployed **BERT-based model** from Hugging Face for sentiment analysis on over to analyze 50,000+ political speeches and manifestos summaries, achieving **87% accuracy** in sentiment classification and revealing regional sentiment trends.
- Automated data collection via **Selenium**, scraping over 200,000 data points on candidate profiles, campaign events, and voter turnout for deeper analysis. Processed over 1 million records of election data across 543 constituencies.
- Designed interactive dashboards in **Power BI** and created visualizations with **Seaborn**, highlighting trends such as vote shares and turnout patterns. Derived insights into party dominance and demographic impacts, identifying regions with a **20% growth in vote share**, guiding targeted strategies.

Certifications

- Oracle Certified Generative AI Professional**
- Oracle Certified Foundations Associate**
- Machine Learning IIIT Delhi , NPTEL**

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Achievements

Associate Tech Lead at SRMKZilla:

January 2022 - November 2022

- Led the technical team in organizing 5+ hackathons and 8+ technical events, managing end-to-end logistics and engaging 300+ participants.
- Spearheaded the design and implementation of tech infrastructure, ensuring seamless execution while identifying and resolving technical issues in real-time to enhance participant experience.

Committee Member at Aarrush:

September 2021 - November 2022

- Supervised a team of 60+ members to execute 12+ events, including Aarrush's 3 flagship events with 2000+ participants.
- Focused on optimizing event workflows, ensuring seamless collaboration, and enhancing participant engagement through innovative technical solutions.