Pushkal Pratap Singh

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EDUCATION

SRM Institute Of Science And Technology **Ramapuram ,Chennai**
Bachelor of Technology, Computer Science (2023-2027) Cumulative CGPA (Sem 1-3) 8.96

WORK EXPERIENCE

Ohri8 Pvt Ltd. **Chennai**
CEO/COO Apr 2024-Present

- Specialized in making innovative vending machine
- Focused in working towards sustainability and innovation.

IIE SRM IST RMP **Chennai**
Vice President Sep 2024-Present

- Focusing on different ways on innovations.
- Understanding the work of startup industries.
- Organizing events and create a community of the best

Cincod Developer Community **Chennai**
Community Manager Nov 2024-Present

- Developing a community of software developers all around India.

PROJECTS

Project: AI Mind-Reader (Simulated EEG Analysis)

- Description: Developed a full-stack AI system that "reads minds" by analyzing simulated EEG data to predict user thoughts (e.g., shapes, emotions). Built with Next.js for the frontend/backend and Python for AI/ML, the system includes user authentication, real-time predictions, and a dashboard for tracking results.
- Key Features:
- Simulated EEG data generation and classification using Random Forest and CNNs.
- Interactive UI for mind-reading experiments and visualization of predictions.
- REST API integration between Next.js and Python backend.
- Tech Stack: Next.js, Python (FastAPI, TensorFlow), MongoDB, Tailwind CSS.
- Outcome: Demonstrated the feasibility of AI-driven thought prediction with 85% accuracy on simulated data.
- Collabed with Meet Patel, Rohan Singh Aswal in making the Frontend and Backend along with the training of the model.

Gold Price Prediction Using Machine Learning

- Objective: Developed a predictive model to forecast gold prices using historical data spanning 15 years.
- Dataset: Utilized a time-series dataset containing 15 years of historical gold prices (daily prices) and accounting all the important days where we saw a high or low in the price of gold.
- Tools & Technologies: Python, Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Google Collab.
- Algorithms: Implemented Linear Regression, Decision Trees for time-series forecasting.
- Key Tasks:
    - Performed data cleaning, normalization, and feature engineering on the historical dataset.
    - Split the data into training and testing sets for model evaluation.
    - Trained and evaluated multiple machine learning models to identify the best-performing one.
    - Visualized trends, predictions, and model performance using Matplotlib and Seaborn.
- Outcome: Achieved a model with an accuracy of 98% in predicting gold prices for the upcoming days.
- Learning: Gained hands-on experience in time-series forecasting, data preprocessing, and model evaluation.

Project: COVID-19 Impact Analysis – Deaths by State and Age Group

- **Objective**: Analyzed COVID-19 data to identify states with the highest death rates and the age groups most affected, providing insights for future pandemic preparedness.
- **Dataset**: Used a COVID-19 dataset containing state-wise and age-wise infection and mortality statistics.
- **Tools & Technologies**: Python, Pandas, NumPy, Matplotlib, Seaborn, Jupyter Notebook.
- **Key Tasks**:
    - Cleaned and preprocessed the dataset to handle missing values and inconsistencies.
    - Aggregated data to identify states with the highest death rates and age groups most vulnerable to severe outcomes.
    - Visualized trends and patterns using bar charts, heatmaps, and pie charts to highlight critical insights.
    - Conducted statistical analysis to understand correlations between age, location, and mortality rates.
- **Outcome**:
    - Identified 7 states with the highest death rates and 55 and above age groups most affected by COVID-19.
    - Provided actionable insights to help policymakers and healthcare systems prepare for future pandemics.

- **Learning**: Gained experience in data cleaning, exploratory data analysis (EDA), and visualizing public health data to derive meaningful conclusions.

CERTIFICATES

Python for Data Science, AI & Development **IBM**
Issued on Jan 2025 Cred ID - 0SE4WV3VQ1L
Preparing Data for Analysis with Microsoft Excel **Microsoft**
Issued on Feb 2025 Cred ID- 0FE4FTGH2WV

ACHIEVEMENTS & INVOLVEMENTS

Participated in Flipkart Grid 4.0.
Participated in SIH 2024.
DEVFEST 2024 - Attended the DEVFEST 2024 organized by GDG Chennai in IIT Madras Research Park.
NATIONAL EVENT: INNOVATES 2025
Hosted by: Ematix Embedded & Software Solutions Inc.(Accredited by Ministry of Corporate Affairs - Govt of India)
IIM Bangalore SummitUp 2024- Attended 2 days events understanding how to grow and improve your business and become a successful startup.
Research Paper-Pcb defect detection and design assistance using advance machine learning techniques. Published on ResearchGate and Google Scholar.

SKILLS

- **Languages:** English, Hindi, German, Japanese
- **Tech Stack & Languages:** C, C++, Java, Python, Kotlin, Swift, PowerBi
- **Cloud & Deployment:** Azure, Cloudflare, Netlify, Vercel
- **Backend & Runtime:** Flash, Django
- **Frame Work:** Yolo, PyTorch, Keras, TensorFlow, Scikit-Learn, MMDetection
- **Database & ORM:** MongoDB, MySQL, PostgreSQL, Supabase, Firebase
- **DevOps & Tools:** Docker, Git, GitHub, ESLint, Prettier
- **Design & Productivity:** Canva, Figma, Notion
- **Hobbies:** Football, Badminton, Table Tennis, Online Games