YASHRAJ UMESH PANHALKAR

Pune, India | 7875456786 | yashrajpanhalkar146@gmail.com | linkedin.com/in/yashraj-panhalkar | github.com/Yashraj-146

EDUCATION

Bachelor of Engineering in Computer Engineering *Expected May 2026*
Pune Institute of Computer Technology, Pune
Courses: *Data Structures & Algorithms, Database Management System, Operating System, Software Engineering, Computer Networks*

TECHNICAL SKILLS

Languages: Python, C++ (Object Oriented Programming), HTML, CSS3
Frameworks/Libraries: TensorFlow, Keras, Pandas, NumPy, React.js
Key Techniques: Neural Networks, Activation functions (Sigmoid, ReLU, Softmax), Data Preprocessing, Model Optimization
Tools: GitHub, Jupyter Notebook, Visual Studio Code, Anaconda Navigator
Databases: MongoDB, MySQL

PROJECTS

Retail Demand Forecast for Small Enterprises(SSEs) | *LSTM, TFT, Python* 🔗 *Jan 2025 - Present*
- **Advanced Forecasting Models:**Designed and implemented predictive models using **Long Short-Term Memory (LSTM)** and **Temporal Fusion Transformer(TFT)**, comparing their accuracies to select the optimal approach for demand forecasting.
- **Enhanced Demand Insights:** Actively refining the solution to ensure accurate, timely order placement, **reducing overstocking** and **empowering data-driven procurement decisions**.
- **Ongoing Development:** Currently enhancing model accuracy and scalability, focusing on tailoring the system to the unique needs of small-scale enterprises while ensuring seamless integration into existing workflows.

Flight Delay Prediction using LSTM & XGBoost | *LSTM Model, XGBoost Ensemble, Python* 🔗 *Aug - Nov 2024*
- **Developed a hybrid flight delay prediction model** combining **Long Short-Term Memory (LSTM)** networks for temporal sequence analysis and XGBoost for robust feature selection, achieving an **accuracy of 98.40%.**
- **Engineered predictive features** such as Airline Company and Year of Aircraft Manufacture from the Bureau of Transportation Services (BTS) dataset, enhancing model performance by addressing **temporal dependencies** and complex feature interactions.
- Implemented **robust workflows** emphasizing **automation** in feature extraction and **testing model performance** using diverse scenarios.
- **Documented** the development process, including **model architecture**, challenges, and **optimizations**.

College Placement Portal | *React, Tailwind CSS, Flask, MongoDB* 🔗 *Jan - Mar 2024*
- Collaborated on the development of an end-to-end website for the Training and Placement (TnP) cell of PICT, focused on streamlining the placement process for students.
- Focused on **front-end development** using React and Tailwind CSS, building responsive and interactive interfaces for job postings, student profiles, and application tracking.

CERTIFICATIONS

Supervised Machine Learning: Regression and Classification | *Coursera*
Advanced Learning Algorithm | *Coursera*
BCG GenAI Job Simulation on Forage | *Forage*

ACHIEVEMENTS

Published **Research Paper** on **Flight Delay Prediction using LSTM & XGBoost** at **Computer Research and Development (Elsevier)** Volume 24 Issue 11 2024.🔗

EXTRA CURRICULAR

Core Member | *Entrepreneurship Development Cell, PICT* *2023 - Present*
- Spearheaded the implementation of a novel Entrepreneurial Meet concept for the Entrepreneurship Development Cell, fostering collaboration and knowledge exchange among aspiring entrepreneurs.

Content Writer | *TEDxPICT* *2023 - 2024*
- Crafted compelling narrative and insightful analysis in "X: Musk's Visionary Digital Nexus," exploring the intersection of Musk's futuristic ideas and contemporary technological advancements.