

# MADHUSEKHAR SHAVALA

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## Professional Summary

Results-driven Software Engineer with expertise in Python, Machine Learning, and Streamlit. Strong foundation with hands-on experience in real-time AI/ML applications, deploying end-to-end ML models, and working with Docker, GitHub, and cloud-based tools. Currently working at Lyros Technologies.

## Education

G Pullaiah College of Engineering and Technology

Bachelor of Technology in Electronics and Communication Engineering

Sep. 2017 – May 2024

Kurnool, AP

## Relevant Coursework

- Data Science
- Machine Learning
- Deep Learning
- Python
- Artificial Intelligence

## Experience

LYROS Tech Pvt. Ltd

Feb 2025 – Present

Software Engineer

Hyderabad, Telangana

- Developed a restaurant rating prediction model using **Random Forest** and **Linear Regression** on Zomato data, achieving over **85% accuracy**.
- Performed EDA and applied feature engineering on categorical and geospatial features such as city, location, and cuisines.
- Built a GUI-based Student Grading System using **Python**, **Tkinter**, **NumPy**, and **Pandas**.
- Created a **Streamlit** app for **Student Performance Prediction** using multiple regression models with **Matplotlib** and **Seaborn**.
- Developed a dynamic **Indian Tax Calculator** using **Streamlit**, featuring **real-time UI**, **PDF/CSV export**, and **Plotly visualizations**.

## Projects

Zomato Restaurant Rating Prediction | *ML, Pandas, Seaborn, Scikit-learn*

Feb 2025

- Built a complete ML pipeline using **Pandas**, **Seaborn**, and **Scikit-learn** for restaurant rating prediction.
- Performed EDA to explore customer behavior and preferences.
- Applied feature engineering on categorical and geospatial data.
- Trained and evaluated **Random Forest** and **Linear Regression** models, achieving over **85% accuracy**.
- Visualized insights using Seaborn heatmaps and Plotly.

Student Grading System | *Python, Tkinter*

Mar 2025

- Developed a GUI-based internal tool using **Python** and **Tkinter** to efficiently manage student grades.
- Trained multiple regression models including **Linear**, **Polynomial**, **Decision Tree**, and **Random Forest Regression**.
- Created interactive Matplotlib and Seaborn visualizations to track score trends.
- Implemented a secure login system for administrators and faculty.
- Handled student records and validations using **NumPy** and **Pandas**.
- Designed with a future-ready architecture to support ML-based automated grading and analytics.

Student Performance Prediction | *ML, Seaborn, Streamlit*

Apr 2025

- Created a **real-time Streamlit** app to predict student scores using attendance and test data.
- Trained **Linear**, **Polynomial**, **Decision Tree**, and **Random Forest Regression** models.
- Visualized predictions with **Matplotlib** and **Seaborn**.
- Enabled **batch predictions** and **CSV export**.

Tax Calculator | *Python, Streamlit*

May 2025

- Built an **Indian tax calculator** supporting both **Old** and **New** tax regimes.
- Designed a dynamic UI with sliders, dropdowns, and validation.
- Implemented logic using modular **Python functions**.
- Used **Plotly bar charts** for real-time visualization.
- Enabled export to **PDF** and **CSV** and applied custom **CSS styling**.

## Academic Project

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### Multipurpose Crosstalk Noise Avoidance in ASIC Design | *Xilinx, VLSI*

Jan 2021

- Implemented **Test Adaptive Shielding (TAS)** to minimize crosstalk noise in ASIC circuits.
- Analyzed **electromagnetic coupling** and optimized **VLSI shielding design**.
- Simulated the design using **Xilinx** to enhance performance and reduce cost.

## Technical Skills

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**Programming Languages:** Python, Machine Learning

**Tools and Technologies:** Xilinx, GitHub, Streamlit, Flask

**Web Technologies:** HTML, CSS, UI/UX

**Data Science Tools:** Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn

## Languages

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- English
- Telugu
- Hindi

## Declaration

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I hereby declare that all the information provided above is true to the best of my knowledge and belief.

Date:

MADHUSEKHAR SHAVALA