# Varad Alshi

#### **Education**

#### Dr. Vishwanath Karad MIT World Peace University

2023 - 2027

B.E. in Computer Engineering

FY CGPA: 8.97SY CGPA: Ongoing

## **Experience**

#### **Data Science Intern**

Finlatics Data Science with Python Program | Feb 2025 - Apr 2025

- Completed a 2-month intensive, hands-on internship focused on data analysis using Python.
- Worked on multiple real-world projects involving statistical techniques, business problem translation, and data-driven decision-making.
- Gained experience in handling complex datasets, deriving actionable insights, and applying Python for data wrangling and analysis.
- Recognized for strong attention to detail, critical thinking, and innovative problem-solving, as documented in a formal Letter of Recommendation by the program supervisor.

# **Projects**

## **Stock Price Prediction using Machine Learning**

- Developed an end-to-end stock price prediction model using Python and machine learning.
- Retrieved and processed historical stock data (1990–2025) using the **yfinance** API.
- Preprocessed and split data using **Pandas**, reserving the last 100 rows for testing.
- Trained a **Random Forest Classifier** using **Scikit-learn** to predict stock price movement.
- Evaluated predictions with boolean comparison and precision score as the key metric.
- Applied backtesting techniques to simulate real-world model performance and retrained for better accuracy.
- Improved model precision to 57%+ after refinement and iterative tuning.
- Visualized findings using **Matplotlib** for performance insights and model evaluation.

#### F1 2025: Race Prediction Model

- Developed a machine learning model (Gradient Boosting Regressor) to predict per- driver lap times with measurable accuracy.
- Integrated live qualifying data, sector times, and OpenWeatherMap forecasts for realtime race simulations.
- Engineered a custom Wet Performance Factor to account for driver efficiency under wet conditions.
- Created reusable, race-specific prediction scripts for continuous updates throughout the F1 2025 season.
- Implemented robust pre-processing (mean imputation, outlier handling) and model evaluation using **MAE**.

 Structured the project for scalability, allowing future GPs to plug in new data with minimal changes

# **Carbon Footprint Calculator**

- Developed a responsive web application using **React**, **Vite**, and **TypeScript** to estimate users' carbon emissions based on travel, energy usage, and lifestyle data.
- Engineered dynamic form handling with **contextual validations** and reusable components for streamlined data entry and modular UI.
- Applied state management using **React Context** and optimized performance through code-splitting and lazy loading.
- Structured the project for scalability, enabling easy integration of new emission categories and global expansion with minimal changes.

#### **Skills**

- Data Science
- Data Visualization
- Machine Learning and Artificial Intelligence
- Database Management
- Backend Development Golang
- Languages: C, C++, Python, Java

#### **Courses**

#### Java Masterclass 2023 Tim Buchalka

Certificate: udemy.com/certificate/UC-6a420b80-d522-4ad4-86d4-4bca7ab78ad7/

#### R Programming Basics for Data Science IBM

Certificate: courses.edx.org/certificates/edc57a520a8e4963a4d8c6226ea9330f

#### **Python Basics for Data Science IBM**

Certificate: courses.edx.org/certificates/703c9d63c930482eb40824567e20f5f5

#### **Extracuricular Activities**

#### **GDG - MITWPU | Content Writer**

Nov 2023-

- Part of GDG-MITWPU's Design X Content Team, working as a content writer.
- Have provided multiple short pieces of content, posted on the club's social media handles.
- Volunteered for multiple club events, since joining.

#### CDC - MITWPU | Training and Upskilling Team

Feb 2025 -

- Part of MITWPU's Career Development Center as member of Training and Upskilling Team
- Volunteered for events, gaining real-world knowledge about relevant fields.