

Harshwardhan Raghunath Patil

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Education

Master of Science in Computational Science

Indiana University, Bloomington

August 2022 – May 2024

Indiana, USA

Bachelor of Technology in Computer Science

Shivaji University, Kolhapur

Aug 2016 – March 2020

Maharashtra, India

Technical Skills

Languages : Python, R, MATLAB, SQL, Node.js, React

Tools : Tableau, PowerBI, RStudio, PyCharm, Jupyter

Analysis Techniques : Descriptive and Inferential Statistics, Regression Analysis, ANOVA, Multivariate Analysis

ML Algorithms : Regression, Clustering, Predictive Modeling, Decision Trees, Neural Networks

Miscellaneous : Linux, Git, AWS, Docker, Kubernetes, Hadoop, Spark

Experience

Research Assistant (Data Analyst)

April 2023 – Present

IU Developmental Cognitive Neuroscience Lab, Bloomington

Indiana, USA

- Investigated use of physiological signals in predicting risk levels & performance outcomes using the **Iowa Gambling Task**.
- Derived robust insights and supported evidence-based decision making utilizing **bayesian approaches**.

System Engineer

November 2020 – July 2022

Infosys Limited, Bangalore

Karnataka, India

- Modified **ETL** process scripts which improved the efficiency and performance of the **data pipelines** by 30%.
- Designed and developed **PL/SQL** scripts to collect and analyze data from more than 50 networking infrastructures systems.
- Achieved a 20% improvement in **operational excellence** by implementing automation for job scheduling and monitoring in collaboration with the IT team.

Projects

Exploring Machine Learning Techniques for Sales Forecasting at Walmart Stores

- Inferred trends, patterns, and correlations in the walmart store data for 45 Walmart stores.
- Designed ML models by utilizing **random forest** and **XGBoost** to predict weekly sales achieving accuracy of 94%.

Data-driven Customer Segmentation for Personalized Marketing

- Conducted customer segmentation using **K-means clustering** based on purchase behavior of grocery store customers.
- Performed exploratory data analysis in **R** and utilized **ggplot2** and **plotly** to present actionable insights.

Analyzing Employee Performance for HR Analytics

- Analyzed a real-world employee records dataset of 15000 rows using **Pandas** and **Seaborn**.
- Constructed performance metrics and identified **KPIs** to evaluate team performance and enhance HR decision making.

Playstore Apps Data Analysis

- Executed **multivariate analysis** to uncover patterns, trends, and key insights regarding app usage and user preferences.
- Developed 3 visualizations in **Tableau** to effectively communicate user preferences and facilitate data-driven decision making for app developers and marketers.

MedEase - A Medical Record-keeping System

- Created a record-keeping system using **React**, **Django**, **Python**, and **PostgreSQL** to manage patient records easily.
- Designed and implemented features for scheduling appointments and tracking patient health metrics, improving data accuracy and streamlining record-keeping processes.

Certifications

Google Advanced Data Analytics Professional Certificate

July 2023

AWS Certified Solutions Architect - Associate

July 2023

Leadership and Involvements

Vice-President and **Director** of Public Relations, Data Science Club at IU

Dec 2022 – Present

Secretary, IEEE Indiana University Student Branch

April 2022 – Present

Secretary, Data Science Club at IU

Aug 2022 – Dec 2022