Harshwardhan Raghunath Patil

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Education

Master of Science in Computational Science

August 2022 - May 2024

Indiana University, Bloomington

Indiana, USA

Certifications: Google Advanced Data Analytics Professional Certificate

Coursework: Statistics, Cloud Computing, Machine Learning, Deep Learning, Computer Vision, Natural Language Processing

Bachelor of Technology in Computer Science

Aug 2016 - March 2020

Shivaji University, Kolhapur

Maharashtra, India

Coursework: Operating System, Computer Networking, Distributed Systems, Database Management Systems

Technical Skills

Languages : Python, Go, SQL

Tools : PyCharm, Anaconda, Visual Studio, Tableau, Oracle SQL Developer, pgAdmin

Web Frameworks : Node.js, React

ML Algorithms : Regression, Classification, Clustering, Decision Trees, Neural Networks
Miscellaneous : Linux, Git, AWS, Docker, Kubernetes, CI/CD, Hadoop, Spark, Agile

Experience

Research Assistant (Software Developer)

May 2023 - Present

NLP Lab, Bloomington.

Indiana, USA

- Built and pushed live an EllipsisAnnotator web tool (Flask and PostgreSQL) for creating The Hoosier Ellipsis Corpus.
- Collaborating with a team of 5 researchers to develop and fine-tune **LLM model pipelines** for Ellipsis Elimination.

System Engineer

November 2020 - July 2022

Infosys Limited, Bangalore.

Karnataka, India

- Designed and developed PL/SQL scripts to collect and organize data from 50+ networking infrastructure systems.
- Improved data pipeline performance by 30% through modification of ETL processes and Oracle DBMS job scripts.
- Achieved 20% improvement in **operational excellence** by implementing automation for job scheduling and monitoring.

Projects

Buddies - A Roommate Search and Accommodation Listing platform

- Built an application using **React**(Frontend), **Go**(Backend Logic and APIs), and **PostgreSQL**(robust data management).
- Engineered an advanced search and filtering algorithm for optimizing matches based on location, budget, and lifestyle.
- Employed mapping and location services to display listings geographically to find nearby accommodations conveniently.

MedEase - A Medical Record-keeping System

- Created a system using React, Django, Python, and MySQL to store and access patient records easily.
- Implemented features for scheduling appointments, tracking patient health metrics, and profile management.
- Incorporated AI-driven recommendations for personalized wellness insights using health data and medical history.

PetShop - A E-Commerce System for Pet Food, Toys, and Treats

- Integrated the front-end interface with the back-end functionalities using **REST APIs** and **Django templates**.
- Implemented product search, filtering, sorting, and pagination for an enhanced user experience.
- Executed a collection display feature to showcase the available animals in the pet shop.

Leadership and Involvements

Secretary, IEEE Indiana University Student Branch

April 2022 - Present

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

Dec 2022 – Present

Secretary, Data Science Club at IU

Aug 2022 – Dec 2022