

# YASSIR A.R HIROLI

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## SUMMARY

Analytically-minded with strong numerical and problem-solving skills with hands-on experience in the BFSI domain. Proficient in Python, Java, SQL, Linux commands and MERN stack (HTML, CSS, JS). Skilled in data extraction, data handling, exploratory data analysis, data visualization and Machine learning. Adept at building and training machine learning models to derive meaningful insights from data and leveraging AI Systems. Passionate about using data-driven approaches to solve complex problems and eager to contribute to innovative projects in a collaborative environment.

## TECHNICAL SKILLS

**Coding Languages:** Python (Advanced), Java, SQL (Advanced), MERN stack (Including HTML, CSS, JavaScript) and Linux

**ML & Deep Learning Libraries:** Keras, TensorFlow, scikit-learn(sklearn), PyTorch, H2O(AutoML) and Optuna.

**Data Visualization libraries:** Matplotlib, Seaborn, PowerBI, Pywaffle, WordCloud, Plotly, Folium and Dash.

**LLMs:** Llama3, Flan-T5, LangChain.

**Other libraries:** Data Manipulation (NumPy, Pandas, Scipy), Computer Vision (OpenCV).

**Platforms:** VSCode, Microsoft Azure, IBMWatsonx.ai, H2O, Microsoft Power, Microsoft Automate and Figma

**Other Skills:** Data Preprocessing, Data Wrangling/Cleaning, Exploratory data analysis (EDA), Data Visualization and Analysis, Deep Learning, Natural Language Processing and generation, Time series forecasting, Risk management, Intrusion Detection System, AWS lambda and Version control systems (Git).

## PROFESSIONAL EXPERIENCE

### Data Science and Machine Learning Intern (BSFI domain)

MGS tech Pvt. Ltd. | Pune, India

Feb 2024 – July 2024

- **Developed** a facial recognition model with 89.87% accuracy to distinguish between real and fake faces, enhancing security and verification systems.
- **Extracted, preprocessed, and visualized** web datasets to optimize **data** readiness for modeling using libraries like NumPy, Matplotlib, and Pandas.
- **Designed** custom model architectures and **fine-tuned** pretrained **models**, including Haar Cascade, YOLO, and MobileNetV2, using Keras and TensorFlow to meet specific project requirements.
- **Collaborated** on training a model for ID card data extraction, achieving 94.2% accuracy.
- Contributed to development of company **chatbot** utilizing **LLMs** (Llama3) and integrating with SQL **databases** using **RAG** for efficient data retrieval.

### Spectator services and IT support Volunteering

FIFA | Doha, Qatar

Sep 2021 – Dec 2021

- Delivered IT **support** to stadium spectators by **managing** ticketing, network connectivity, and seating **guidance**, while documenting and reporting issues to head staff for timely resolution

## EDUCATION AND CERTIFICATES

**B. Tech in Computer Science and Technology (CSE)** | MIT-WPU

2020-2024

Relevant coursework: Algebra and calculus(A), Probability and Statistics(A), Big data technology(A), AI and expert systems(A), Machine learning(A), Analysis of algorithm(B+), Principles of prog. Lang. with Python(A+), Finance and costing(A) **Overall Grade: First class with distinction**

**IBM Data Science Professional Certificate** | Coursera

Jan 2025

Mastered Python, SQL, data analysis, data visualization, and machine learning through hands-on projects using **real-world datasets**.

**IBM Generative AI for Data Scientists Specialization** | Coursera

Jan 2025

Specialized in generative AI, prompt engineering, and AI-driven data science workflows.

**Generative AI with LLMs** | DeepLearning.AI and AWS

Jan 2025

Gained practical knowledge of large language models (LLMs), **transformer** architectures, NLP, prompt optimization, fine-tuning and **built** real-world AI/NLP applications

In Progress: **Microsoft Certified: Azure AI Engineer Associate** (AI-102) and **Microsoft Certified: Azure Data Scientist Associate** (DP-100)

## PROJECTS

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IBM Applied Data Science Capstone

- Utilized SpaceX API and web scraping for **data collection**, performed **data wrangling** and One Hot Encoding on the dataset.
- Performed **EDA** with visualization tools and **SQL**.
- Performed **Hyperparameter tuning** on the models to find best parameter for the project
- Built and evaluated classification **models** (KNN, Decision Tree, SVM, Logistic Regression).

Forecasting Market Trends for Gemstones

- Conducted gemstone price prediction through **data analysis** and **Exploratory Data Analysis (EDA)** to uncover patterns and relationships in dataset. Implemented and evaluated multiple machine learning **models** (Linear Regression, KNN, Random Forest, Gradient Boosting) using **scikit-learn** to deliver accurate and insightful price forecasts.

Wildlife Sanctuary Management System

- Led **backend development** for Wildlife Sanctuary Management System using Node.js and MySQL, creating a dynamic and efficient solution for sanctuary management.
- Built and optimized **database infrastructure**, ensuring a responsive and comprehensive user and administrator experience.

2-Player Rock, Paper, Scissors through hand gesture recognition

- Developed using YOLOv3(**CNN**) for accurate hand gesture recognition, providing instant on-screen results without need for additional preprocessing.
- Implemented a convolutional neural network (**CNN**) model leveraging **Deep Learning** frameworks (DarkNet-53, MediaPipe, OpenCV) for efficient and accurate gesture identification.

Intrusion Detection System with Honeypots

- Led development of user-friendly Automatic Intrusion Door Security System using Raspberry Pi and IoT integration utilizing **CNN** for facial recognition, addressing security challenges beyond conventional lock and key systems.
- Implemented real-time notifications through Telegram **Cloud**, providing immediate alerts by sending SMS and message (on telegram) of intruder face to user.

You can find more projects that I've completed on Github ( <https://github.com/yasssir04> )

## ACHIEVEMENTS, INTEREST AND HOBBIES

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Achievements: 4<sup>th</sup> in inter college rowing competition, Managed multiple University Events.

Interests: Technology, Football, CrossFit, Music, Reading books and articles (related Human Cognition, psychology and economics), Workout and Philosophy

