# **BHARATH D**

Location: Chennai, TamilNadu, India

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#### **EXPERIENCE**

## **Software Engineer**

Annuity Risk India, Chennai

Feb 2024 - Present

- Integrated AI/ML-powered KYC verification into the app, automating identity verification and fraud detection, leading to improved accuracy and efficiency.
- Worked on a **Data Analysis application** by integrating **Flutter with R**, enabling advanced statistical computations and visualization directly within the mobile app.
- Contributed to the development of a **freelancing platform similar to Fiverr**, specifically designed for **Chartered Accountants (CAs)** to find and offer professional services.
- Developed and optimized **Forex and compliance applications** for banking institutions, ensuring adherence to financial regulations and improving transaction monitoring.

## **TECHNICAL PROFICIENCIES**

**Languages** : C, C++, Python, R, SQL, Java, TypeScript, Shell Scripting

Frameworks : PyTorch, TensorFlow, FastAPI, PySpark, Apache Airflow, Flutter, React.js, Node.js, Streamlit

Libraries : Pandas, NumPy, scikit-learn, XGBoost, CatBoost, Hugging Face Transformers, OpenCV

**Databases** : SQL (Oracle, MySQL, PostgreSQL, SQL Server), NoSQL (MongoDB, Cassandra, Neo4j), Redis **Cloud & MLOps** : Azure Machine Learning Studio, Databricks, MLflow, AWS SageMaker, Kubernetes, Docker

**Dev Tools** : Git, CI/CD (Jenkins, GitHub Actions), Tableau, Weka, Orange

Specialized Skills: Statistical Analysis, Regression, Classification, Time Series Analysis, Computer Vision, NLP

#### **PROJECTS**

**TalentScout** Link Feb 2025 - Mar 2025

- Developed an AI-powered Screening Chatbot that dynamically generates technical questions based on job-specific skills.
- Implemented vector similarity-based answer evaluation for precise scoring and adaptive difficulty levels for better assessment.
- Built a job application system with candidate tracking, automated ranking, and a leaderboard.
- Designed Learning Mode for skill enhancement and Screening Mode for real-time AI-driven interviews.
- Integrated SQLite database for managing job listings, applications, and interview results.
- Developed an interactive Streamlit UI and successfully deployed the application on Streamlit Cloud.

### **Brain Tumor Classification using SWIN-LSTM Model**

GitHub

Dec 2023 - Apr 2024

- Developed an automated deep learning framework for MRI brain tumor detection, integrating Swin Transformer for spatial feature extraction and LSTM for temporal modeling.
- Enhanced tumor classification by **capturing spatial relationships** in MRI images and **modeling temporal dependencies** in sequential data.
- Addressed key challenges such as **class imbalance**, **segmentation accuracy**, and computational efficiency through advanced deep learning techniques.
- Benchmarked the model against **state-of-the-art methods**, demonstrating improved **accuracy, robustness, and interpretability**.
- Deployed the framework using MLflow and Azure Databricks for scalable training, evaluation, and tracking of experiments.

#### **Vehicle Speed Detection**

GitHub

Apr 2023 - May 2023

- Developed a **real-time Vehicle Speed Detection system** using the **YOLOv8** object detection model in Python.
- Implemented **object tracking and speed estimation** using video processing techniques.
- Optimized detection accuracy by fine-tuning the YOLOv8 model on a custom dataset.

## **EDUCATION**

## Mepco Schlenk Engineering College, Sivakasi, Tamil Nadu

B.Tech Artificial Intelligence and Data Science

CGPA: 8.65 2020-2024

## **CERTIFICATIONS**

- AWS Certified Cloud Practitioner AWS
- Data Science for Engineers IIT Madras NPTEL
- Introduction to Machine Learning IITKGP **NPTEL**
- Natural Language Processing IITKGP NPTEL