

# R.Sarath Kumar

Portfolio

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Github

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Bengaluru, Karnataka.

## WORK EXPERIENCE

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### Machine Learning Intern

Feb 2024 - Present

*Antern*

- Implemented advanced NLP machine learning models, resulting in a 20% enhancement in accuracy over baseline performance.
- Implemented cutting-edge deep learning algorithms, including Transformers and CNNs, enhancing multi-model application performance by 25%.
- Created and optimized machine learning pipelines using TensorFlow and PyTorch, enhancing predictive performance by 20% on key metrics.

### Data Science Intern

Sep 2022 - Jan 2023

*IIT-Madras*

- Developed and launched a recommendation engine, increasing average order size by 12% and enhancing customer satisfaction metrics
- Implemented advanced time series forecasting techniques, reducing customer wait times by 10 minutes and boosting order fulfillment efficiency by 25%.
- Leveraged client interaction data analysis to enhance collaboration with product and marketing, resulting in an 18% rise in service opt-ins.

## SKILLS

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**Core Skills:** Machine Learning, MLOPs, Deep Learning, Python, NLP, Data Analysis, SQL, PostgreSQL.

**Frameworks and Libraries:** TensorFlow, PyTorch, Scikit-learn, Hugging Face, OpenCV, NLTK

**Databases:** MongoDB, MySQL

**MLOPs :** ZenML, MLFlow, BentoML, Weight & Bias

**Tools:** Docker, Streamlit, Flask, FastAPI, Linux.

## PROJECTS

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### 1. Automated Machine Learning Pipeline for Customer Churn Prediction

- Built an end-to-end machine learning pipeline to predict customer churn using **ZenML** for modular and automated workflows. Integrated **MLflow** for experiment tracking, logging metrics, and managing model versions.
- Deployed the final model using **Docker**, **FastAPI** and **Huggingface** ensuring seamless integration into production environments.
- Automated repetitive processes, reducing manual intervention by 70%, which enhanced overall system efficiency by 25%.

### 2. End-to-End Sentiment Analysis Using Pretrained Transformer Models

- Designed an end-to-end sentiment analysis solution using **DistilBERT-cased**, achieving 90% accuracy in text classification on benchmark datasets.
- Automated an ML pipeline using **ZenML**, enhancing efficiency by 40% with integrated stages for data ingestion to evaluation. Implemented **MLflow** for experiment tracking, reducing model tuning time by 30% while managing over 50 versions through model registry.
- Deployed a scalable model on Hugging Face Spaces, improving deployment efficiency by 30% using Hugging Face Transformers.

### 3.TalentScout-AI Hiring Assistant

- Engineered a Gemini AI API-based platform, reducing time to generate technical interview questions by 70% through automated skill set extraction.
- Designed a resume parser to extract key candidate information from the resume, increasing question generation accuracy by 25%.
- Deployed a feature enabling real-time saving of candidate responses in JSON format, reducing recruitment evaluation time by 20%.

## EDUCATION

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### IIT Madras

June 2022 - Dec 2022

*Advanced Professional Master Program in Data Science*

### Shanmuga Industries Arts And Science College, Thiruvannamalai

June 2022

*B.Sc. Biotechnology*

C.G.P.A — 8.5

## CERTIFICATION

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- **Advanced Professional Master Program in Data Science**  
IIT- Madras

*Sep 2022 - Dec 2022*

- **Data Science & Machine Learning**  
Guvi ,Chennai

*June 2022 - Dec 2022*