# Prashanth A Telkar

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# **EDUCATION**

# **IIT KANPUR**

MTECH IN AEROSPACE ENGINEERING Jul 2022 | Kanpur, IN Cum. GPA: 9.25 / 10

#### **MVJCE**

BE IN AERONAUTICAL ENGINEERING Jul 2019 | Bangalore, IN Cum. GPA: 8.02 / 10

# **SKILLS**

#### **EXPLORATORY DATA ANALYSIS**

Data Cleaning • Data Visualization • Inferential Statistics • Hypothesis testing

#### **MACHINE LEARNING**

Supervised Learning:

Linear Regression • Logistic Regression • Naive Bayes • SVM • Tree Models: • Decision Trees • Random Forest • Boosting: • AdaBoost • Gradient Boost • XG Boost

#### Unsupervised Learning:

K-Means Clustering • Hierarchical Clustering

#### **DEEP LEARNING**

ANN • CNN • RNN

#### NLP/GEN-AI

BOW • TF-IDF • Word2Vec • Avg Word2Vec • LSTM RNN • Bidirectional LSTM • Encoder Decoder • Attention Modules • Transformers • BERT • Prompt Engineering • LangChain • LangSmith • LangServe • RAG • Vector Database • Huggingface • Fine Tuning LLM

# **TECHNIQUES**

Hyperparameter Tuning • Cross Validation • Ensemble • RFF • PCA

#### **PROGRAMMING**

Python • MATLAB

#### **TOOLS**

GitHub • Docker • FastAPI • Flask • Streamlit • Postman • Microsoft Azure • PowerBI • Experimental Tracking : Weights and Biases

#### SUMMARY

Data scientist with 2+ years of experience, proficient in leveraging advanced statistical methods and machine learning techniques to extract valuable insights from complex datasets. Proven track record in developing impactful solutions driving business growth. Proficient in deploying containerized solutions across on-premise and cloud platforms using CI/CD pipelines, while adhering to standard data science workflows. Experienced in collaborating across interdisciplinary teams to deliver innovative, data-driven solutions.

#### **EXPERIENCE**

# **EATON INDIA INNOVATION CENTER** | DATA SCIENTIST

Jul 2022 - Present | Pune, IN

- Developed and deployed a comprehensive on-premise motor health analytics solution within the Industrial IoT team.
- Developed a bearing fault detection algorithm that uses a logistic regression model trained on features extracted from motor current signatures, achieving 94% precision and 91% recall, which has been filed as a patent application.
- Containerized algorithms using docker and integrated them into a solution designed
  to captures motor-specific inputs through a React UI connected to a PostgreSQL
  database and subsequently executes algorithms that write insights back to the database. Additionally, integrated a retraining pipeline to optimize algorithm performance.

# **AXISCADES ENGINEERING TECHNOLOGIES** | ANALYSIS ENGINEER Jan 2020 – Jul 2020 | Bangalore, IN

- Stress Analysis of Airbus Fuselage Structures using analytical methods.
- Processing concession | Coordinating with onsite team | RF mitigation.

#### PROJECT

# END-TO-END ML APPLICATION DEPLOYMENT WITH CI/CD

Python | GitHub | Flask | Docker | Heroku

- Developed and trained a regression model on the housing dataset to predict housing prices, saving the model in pickle format for future use.
- Modules Transformers BERT Prompt Created a Flask-based web application to facilitate user interaction with the ma-Engineering • LangChain • LangSmith • chine learning model, allowing for real-time predictions through a user interface.
  - Implemented Docker for containerization of the application, and established a CI/CD pipeline using GitHub Actions. This pipeline automatically builds Docker images and deploys them on the Heroku cloud with each new commit to the main branch, ensuring continuous integration and deployment efficiently.

# **AWARDS**

2023 Eaton India Rookie of the Year2023 Eaton Digital Office Learning Agility across Domains

#### DISCLOSURE/PATENT

- [1] A Generalized Technique for Bearing Fault Detection via Random Frequency Spikes post Eliminating Undesired Frequencies. [2023: Approved for patent filing]
- [2] The Presence of Rotor Slot Harmonics in Motor Current Spectrum. [2024: Approved for patent filing]