Jithin M

Al Engineer • Data Scientist

Kollam, India - 691010



Education

M.Tech in AI and Machine Learning

T.K.M College of Engineering, (Kerala Technological University)

- CGPA score = 7.97
- Minor Project: Object detection of surgical instruments using yolo v5
- Major Project: Area Exploration with mobile robots using reinforcement learing

B.Techn in Electrical and Electronics Engineering

Jawahar College of Engineering and Technology (Caclicut University)

- CGPA score = 9.67
- · Project: Power factor correction in indian Railways using capacitor bank network

Kerala, India

Kerala, India

2020 - 2022

2011 - 2015

Work Experience _____

Internship Trivandrum, India

 Tata Elxsi
 Jan 2022 - Jun 2022

• Developed an autonomous navigation system using reinforcement learning, leveraging ROS, and Gazebo.

Senior Engineer Trivandrum, India

Tata Elxsi Aug 2022 - Present

- Built multiple chatbots for sentiment analysis, question-answering, and text summarization using Hugging Face Transformers, fine-tuning pretrained models like BERT, RoBERTa, and DistilBERT, deployed via a userfriendly Streamlit interface.
- Developed specialized dashboards for Jaguar Land Rover (JLR), leveraging BigQuery, Tableau, and Python to empower Subject Matter Experts (SMEs) in monitoring and addressing system deviations effectively.
- Designed a navigation page in Tableau Online to streamline access to multiple dashboards, enhancing user experience, and efficiency.
- Developed multiple machine learning models for MHEV (Mild Hybrid Electric Vehicle) DC-DC fault prediction, leveraging
 one-class SVM, and various binary classification techniques. The models were designed to predict potential DC-DC
 converter failures, a crucial component in electric and hybrid vehicles, by analyzing operational data and identifying early
 signs of failure.

Freelancer

Aug 2022 - Oct 2022

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- Developed a sentiment analysis system for Amazon customer reviews by first web scraping reviews using BeautifulSoup to extract relevant data from product pages.
- The scraped data was then converted into a pandas DataFrame for efficient processing and analysis. Leveraged state-of-the-art BERT and DistilBERT models to classify the sentiments of customer reviews into positive, negative, or neutral categories.
- The project involved fine-tuning the pre-trained models to enhance performance on sentiment classification, enabling businesses to gain valuable insights into customer opinions and feedback at scale.

Skills

Languages

Malayalam (Native), English (Fluent), Hindi (Intermediate), Tamil (Intermediate)

Programming Languages

Python, SQL, R

Version Control

Git, DVC

Technical Skills

Machine Learning, Deep Learning, Natual Language Processing, Computer Vision

Methodology/Approach

Data Analysis and Visualization, Data Preprocessing and Feature Engineering, Model Deployment and Integration

Markup Languages

Typst, Quarto, LaTeX

Awards_

Best Outgoing Student

Best Outgoing student of EEE batch

Topper of the Mtech Batch

Class second in Mtech AI Batch 2020-2022

Customer Appreciation Award

won customer appreciation from JLR (Client) for creating a tree visualisation dashboard in tableau for high Sev MLA BEV validation

2024-25