

Ashwin Parthasarathy

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Summary

Data Science Enthusiast, seeking to work for a challenging assignment in an organisation that offers ample learning opportunities and professional growth in the field of Data Analytics .6+ years' experience in Data,Backend, Automation .Possess first-hand experience in automating and enhancing applications. and have a Post-Graduation Diploma in Machine Learning, Acquired hands on experience in Machine Learning

Skills

Technical Skills : Python, R, AWS AWS Sagemaker and other services,Docker,Mlflow,FaskAPI,Flask.
Machine Learning Skills : Regression,Random Forest,Classification,NLP,CNN,GPT
Statistical Methods : Predictive Analysis, Hypothesis Testing,Factor Analysis,Conjoint and Cluster Analysis

Experience

Machine Learning engineer , Neoware.ai

Duration: May'23-Present

- Development ML models using AWS Sagemaker
- Document text extraction using Azure AI.
- Backend development for Data validation platform

Software engineer ,Wipro Technology Solutions

Duration: Jan'22-April'23

- Integration of data sources and API's using Django
- Data visualisation using React and MUI

Associate-Automation developer ,Cognizant Technology Solutions

Duration: May'17-Dec'21

- Automating desktop application using Sikuli robot framework
- Framework development contribution using Pytest
- Develop and maintain automation scripts based on test cases identified for automation
- Execute test cases within the Functional, Mobile, or Web Services Automation framework
- Develop, execute and enhance test automation through Robot framework, Selenium
- Operate in an Agile development environment
- Contribute to internal test automation frameworks
- Be an integral part of scrum team, driving Behaviour Driven Development (BDD),
- POC's in Robot framework for Web, Desktop, Mainframe apps and integrating with CI/CD pipeline.
- POC's in Robot framework for Desktop apps using Sikuli Library
- POC's in Robot framework for database testing in MySQL, Sqlite, MongoDB using respective DB libraries.
- POC's in Automating desktop application using Sikuli Library with Java
- POC's in Contract testing and AWS services- S3 and DynamoDB using boto3
- Contract testing and AWS iin python and typescript.
- Integrating the test framework with CI/CD Pipeline.
- Create/Update Knowledge Repository based on project/customer needs inclusive of business/ application levels requirements details in WIKI

Projects

- **House price Prediction using Machine Learning:** This project involved using various features variables available in the Inner-city house price dataset. Different Machine learning models like Regression, Ensemble techniques were used to analyse and predict the house prices. Also, the grid search algorithm was used to tune different parameters associated with models.
Skills and Tools: Feature Selection, Model Selection, Regression, Cross Validation
- **Diagnosing Parkinson's disease using Random Forests:** This project involved using classification algorithms and Ensemble techniques to diagnose Parkinson's Disease (PD) using the patient voice recording data. Various models were used including Naive Bayes, Logistic Regression, SVM, DecisionTree, Random Forest etc. and comparison of accuracy across these models was done to finalise the model for prediction.
Skills and Tools: EDA, Logistic regression, Decision Trees
- **Sentiment Classification on Amazon Food Reviews dataset with EC2 deployment:** We trained an LSTM (Long Short-Term Memory) model to effectively categorise customer sentiments. The aim was to translate complex emotional nuances within text into actionable data. After successfully training the model, we went a step further by modularising the sentiment classification application. This modular approach not only made the system more maintainable but also scalable, potentially serving as a powerful tool for businesses to dynamically adapt to customer feedback. We trained an LSTM (Long Short-Term Memory) model to effectively categorise customer sentiments. The aim was to translate complex emotional nuances within text into actionable data. After successfully training the model, we went a step further by modularising the sentiment classification application. This modular approach not only made the system more maintainable but also scalable, potentially serving as a powerful tool for businesses to dynamically adapt to customer feedback
Skills and Tools: Natural Language Processing (NLP), Pandas, NumPy, Machine Learning
- **Medical Question Answering using GPT2 Mode:** delved into the transformative potential of natural language for healthcare information systems. Our workflow commenced with rigorous data preprocessing, exploratory data analysis (EDA), and feature extraction on a specialised Medical Q&A dataset. We then loaded a pre-trained tokenizer as the foundation for text manipulation. The centrepiece of our project was the fine-tuning of a GPT-2 language model, tailored specifically for answering medical questions. We democratised access to accurate and immediate healthcare advice. We delved into the transformative potential of natural language processing for healthcare information systems. Our workflow commenced with rigorous data preprocessing, exploratory data analysis (EDA), and feature extraction on a specialised Medical Q&A dataset. We then loaded a pre-trained tokenizer as the foundation for text manipulation. The centrepiece of our project was the fine-tuning of a GPT-2 language model, tailored specifically for answering medical questions. We democratised access to accurate and immediate healthcare advice
- **Patient Survival Prediction using XGBoost[Deployment with AWS ECR and ECS]**
- **Automatic Image Captioning :** The development of a multimodal neural network, integrating Computer Vision and Natural Language Processing techniques. Leveraging the Flickr8k dataset, pre-trained ViT models and employing techniques such as attention mechanisms and language modelling to generate accurate and contextually relevant captions
Skills and Tools: , Natural Language Processing (NLP), Natural Language Toolkit, TensorFlow, PyTorch, Keras, Deployments: FastAPI, Docker, AWS, Gradio, HuggingFace, Prometheus, Grafana, Hugging face.
- **Resume Classification using Naive Bayes**
- **Bike Rental Prediction with CI/CD**
- **Keywords Extraction using Transformer on Medical Dataset**
- **Fine-tuning StableDiffusion with DreamBooth**

Certifications

- AWS Certified Machine Learning - Specialty
- Cloud Machine Learning Engineering and MLOps
- Programming in R for data sciences
- Web-Development with Python-Django.

Education

- B.E in Mechanical Engineering, Anna University ,Chennai (2016)
- PG-Level Advanced Certification Programme in AI and MLOPs from IISc.(2023)