NAVEEN RAJU S G
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Github - https://github.com/naveenrajusg?tab=repositories | **Recommendations** - http://bit.ly/3QkDqD6
Portfolio - https://naveenrajusg.github.io/Portfolio/

SUMMARY

I am a seasoned professional with **4 years of experience in the field of Artificial Intelligence**. Proven track record in working on Machine Learning, MLOps, and Deep Learning/Computer Vision projects. I have also excelled in project leadership, Agile methodology, and technical instruction. I am seeking a full time, Co-Op or internship in the fields of Machine Learning, MLOPS, Generative AI (LLM), Deep Learning, Computer Vision, Data Science.

TECHNICAL SKILLS

Cloud : AWS (Amazon Web Services)
Deep learning framework : Keras, TensorFlow
Other libraries : Numpy, Pandas, Matplotlib, scikit-learn
Distributed programming : Apache PySpark
Generative AI : Large language models (LLM)
Other relevant skills : MLOPS, Machine learning, Deep Learning/ComputerVision, NLP

Programming languages : Python, R, C++, SQL
Image processing libraries : Open CV, scikit-image
Data Pipelining : Apache Airflow
Version Control : Git and GitHub

EDUCATION

Illinois Institute of Technology
Master of Science Artificial Intelligence - GPA: 3.833/4 **May 2024**
Courses: Machine Learning, Data Mining, Applied Statistics,Big Data Technologies, Data Preparation and Analysis, Computer Vision, Natural Language Processing, Deep Learning

Visvesvaraya Technological University, India
Bachelor of Engineering, Information Science and Engineering **July 2018**

WORK EXPERIENCE

Graduate Teaching Assistance - Data Mining course (Computer Science Department) **September 2023 - Present**

Engineer CL2-I (Samsung Electro-Mechanics Software India Bangalore Private Limited) **May 2021 – June 2022**

- Developed a deep learning algorithm for number plate detection and recognition with 90% accuracy and improved the crowd detection, human tress pass detection algorithm by 20%.

AI Engineer (Telerad Tech Pvt Ltd., India) **August 2018 – May 2021**

- Led a team of 4+ using the Agile software development method, including project planning, road map creation, release planning, sprint planning, and constant client interaction; assisted in developing proof-of-concept prototypes; removed project development bottlenecks; and instructed team members on technical topics such as deep learning and computer vision.
- Developed and deployed several Deep learning algorithms and image processing pipelines for medical image analysis, including lymph node segmentation (dice score of 90%, sensitivity of 90%, specificity of 90%), asymmetry detection (F1 score of 95%), and calcification reduction (recall of 92%, precision of 90%).
- Customized and implemented several Deep learning architectures for lung disease segmentation and detection, with dice scores of 95%, MAP scores of 90%, and overall accuracy of 93%.

INTERNSHIP

AI-Intern (Telerad Tech Pvt Ltd, India *)* **July 2018**

- Customized deep learning architecture for mammogram lesion segmentation, combined with image processing logic to improve specificity and sensitivity. Obtained an overall IOU score of 94% and an F1 score of 92.5%.

ACADEMIC PROJECT

- **End-to-end automated AWS ML workflow for auto insurance fraud detection :** Developed on AWS, integrating data processing, model training, evaluation, bias check, explainability, registration, and deployment using AWS cloud services.
- **Fine-Tuning the FLAN T5 LLM Model for Enhanced Dialogue Summarization** : A Comprehensive Approach with Full Fine- Tuning and PEFT, Evaluated Using ROGUE Metrics.
- **Enhance Positive Summary Generation by Fine-Tuning FLAN-T5 through Reinforcement Learning** : Used a reward model that predicts either "not hate" or "hate" for the given text and also used Proximal Policy Optimization (PPO) to fine-tune and detoxify the model.
- **Online shoppers' purchasing intentions :** Project focused on analyzing data, leveraging exploratory data analysis and implementing machine learning models (classification and clustering) to comprehend purchasing behavior and predict future purchases, enabling the development of targeted marketing strategies.
- **Real-time machine learning prediction system for taxi ride fares** : Built and deployed the project using AWS SageMaker, Kinesis Data stream, Lambda functions, and S3, utilizing the New York taxi dataset and Linear Learner algorithm, with predictions stored in an S3 bucket.
- **Real estate price prediction :** Led a Comprehensive statistical analysis, applying various regression techniques to enhance prediction. This involved addressing data challenges and significantly improving the effectiveness of the regression model through thorough evaluation.
- **TF-IDF algorithm on Wikipedia data using Apache PySpark :**Developed a custom search engine utilizing Apache PySpark and AWS EMR Studio, enabling efficient analysis and ranking of relevant documents at scale.
- **Streamlined Real-time Data Streaming and Analytics Pipeline :** Implemented with AWS Kinesis, Firehose, Data Streams, AWS kinesis Analytics Application, Glue Crawler, Glue ETL, and Athena for Querying S3-backed Databases.
- **Forex data pipeline using Apache Airflow :** Pipeline included tasks for API validation, data retrieval, storage, Spark processing, and timely notifications via Email and Slack. Established task dependencies and enabled convenient DAG triggering through the Airflow UI

CERTIFICATIONS

AWS Certified Machine learning Speciality 2023 - Hands On | Generative AI with Large Language Models | Neural Networks and Deep Learning | Improving Deep Neural Networks: Hyper parameter tuning, Regularization and Optimization | Convolutional Neural Network | Introduction to TensorFlow for Artificial Intelligence, Machine Learning and Deep Learning | Convolutional Neural Networks in TensorFlow | Sequence Models | Apache Airflow | Apache Spark