Meghanand Dussa

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PROFESSIONAL SYNOPSIS

- IT professional with 7 years of industry experience, including 4 years in Data Science and Machine Learning. Skilled in building data models, data processing, data visualization, and implementing Machine Learning and Deep Learning concepts using Python. Strong mathematical foundation in machine learning algorithms and experience in deploying them for real-world applications.

- Certified in the Advanced Program on Data Sciences from IIM Calcutta, focused on advanced data analysis, predictive modeling, and machine learning algorithms for business needs. Also certified in AWS Machine Learning – Specialty and AWS Cloud technologies. Adept at automating tasks with PowerShell, and developing dashboards in Splunk & New Relic.

TECHNICAL SKILLS

Programming:	Python (NumPy, Pandas, Scikit-learn, Tensorflow), SQL, PowerShell Script
Machine Learning:	Supervised/Unsupervised Learning Techniques: KNN, Logistic & Linear Regression, Naïve Bayes, SVM, Decision Trees, Ensemble Models, NLP, Clustering
Deep Learning:	Neural Network,Tensorflow,Keras,CNN,RNN,Transfer Learning,Object Detection,OpenCV
Cloud:	Amazon Web Services
Visualization:	Tableau, Matplotlib, Seaborn
Certification:	Advanced Program on Data Science from IIM Calcutta Issue date: March 06, 2024 AWS Certified Machine Learning – Specialty (MLS-C01) Issue date: June 30, 2024 Expiration Date: June 30, 2027 AWS Cloud Quest: Cloud Practitioner Issue date: September 04, 2024 AWS Partner: Generative AI Essentials Issue date: February 16, 2024
Frontend Development:	CSS, HTML
Operating Systems:	Windows Server2012R2/2019 standard
Database:	Microsoft SQL Server 2019
Technologies:	.Net
Webserver:	IIS 8.x
Tools:	Splunk, Newrelic, GIT, Bitbucket, Hyland OnBase
Ticketing Tools:	ServiceNow
Domain:	Banking

EDUCATION DETAILS

B.Tech in Electrical and Electronics Engineering from **JNTU, Hyderabad** with an aggregate of **72%**, graduated in year 2012

PROFESSIONAL EXPERIENCE

Organization	Designation	Duration
Birlasoft (India) Pvt Ltd.	Data Analyst	March 2018 – August 2020
	Data Scientist	September 2020 - November 2024

Data Scientist

- Spearheaded multiple machine learning and deep learning projects, collaborating with cross-functional teams to deploy predictive models that provided actionable business insights for healthcare and BFSI sectors.
- Designed and optimized machine learning models, reducing prediction error by 15% through hyperparameter tuning, feature selection, and ensemble learning techniques.
- Automated data pipelines using Python and AWS tools, improving data processing efficiency by 25%.
- Worked closely with MLOps engineers to deploy models into production environments, implementing continuous integration and continuous delivery (CI/CD) pipelines using Jenkins, Docker, and AWS Sagemaker.
- Applied advanced natural language processing (NLP) techniques to extract key insights from unstructured data, increasing operational efficiency for customer support analysis.
- Trained and fine-tuned deep learning models using TensorFlow and Keras for image classification, object detection, and natural language understanding tasks.
- Actively participated in code reviews and mentored junior data scientists on best practices in model development and deployment.
- Built real-time dashboards for predictive analytics using Tableau, providing real-time insights that enhanced decision-making processes for business stakeholders.

Key Projects:

- Developed a customer segmentation model for a leading BFSI client, increasing marketing campaign effectiveness by 20%.
- Integrated machine learning models with cloud-based applications, reducing infrastructure costs by 30% by utilizing AWS auto-scaling and optimizing resource allocation.

Data Analyst

- Analyzed large datasets to identify trends, patterns, and insights, helping decision-makers drive strategic initiatives.
- Developed SQL queries to extract, transform, and load (ETL) data from various sources into centralized data warehouses for reporting and analysis.
- Created automated reports and interactive dashboards in Tableau to track key performance indicators (KPIs) for internal teams and external clients.
- Collaborated with stakeholders to define data requirements and ensure the integrity and quality of data sources.
- Improved the efficiency of existing data processes by automating data cleaning and preprocessing workflows, reducing manual intervention by 40%.

PROJECTS EXECUTED

Cancer Survival Prediction (Data Science Project) GitHub

Objective: Developed a machine learning model to predict the survival rates of cancer patients using historical medical records.

Tools: Python, Scikit-learn, Pandas, XGBoost, Random Forest, Logistic Regression

Process:

- Collected and cleaned the dataset from Kaggle containing patient demographics, cancer types, stages, and treatments.
- Conducted exploratory data analysis (EDA) to understand the distribution of key features, correlations, and missing data.
- Built and fine-tuned machine learning models using logistic regression, random forests, and XGBoost, optimizing model performance through hyperparameter tuning.
- Implemented cross-validation techniques to prevent overfitting and improve generalization on unseen data.
- Used recall and precision-recall curves to evaluate model performance, improving the recall score by 12%.
- Delivered an optimized solution that boosted model accuracy by 10%, helping medical professionals assess patient survival probabilities more effectively.

Satellite-Based Water Body Segmentation Using CNNs GitHub

Objective: Used convolutional neural networks (CNNs) to automatically detect and segment water bodies from satellite images.

Tools: TensorFlow, Keras, OpenCV, Python

Process:

- Sourced high-resolution satellite imagery and applied pre-processing techniques such as image normalization, augmentation, and filtering.
- Designed and implemented a CNN-based encoder-decoder architecture to accurately segment water bodies from other land features in satellite images.
- Utilized transfer learning to speed up model convergence and improve segmentation accuracy by leveraging pre-trained models.
- Deployed the trained model on AWS, integrating with AWS Lambda for real-time inference on new satellite images.
- Reduced manual detection efforts by 80%, enabling faster and more accurate environmental monitoring.

Customer Churn Prediction for a Telecom Company

Objective: Predicted customer churn using historical customer interaction data, enabling the telecom company to reduce churn rates and increase customer retention.

Tools: Python, Scikit-learn, Pandas, XGBoost, Tableau

Process:

- Collected and analyzed customer data, including billing information, customer service interactions, and usage patterns.
- Built a classification model using XGBoost to predict the likelihood of customer churn, achieving an AUC-ROC score of 0.85.
- Integrated the model with the company's CRM system to generate churn probability scores in real-time, enabling the marketing team to target high-risk customers with retention campaigns.
- The implementation resulted in a 15% reduction in churn rates over six months.