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Sreejith Vidyadharan

Professional summary

Highly driven Data Scientist, with 3 years of experience in machine learning, natural language processing and cloud computing. Creative problem solver, focused on continuous improvement and optimisation with 11+ years experience in telecommunication sector. Passionate learner of anything new, with advanced programming and proficiency in cloud computing platforms.

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in https://www.linkedin.com/in/sreejith vidyadharan

Work history

Omdena - **Machine Learning Engineer**
Liverpool
12/2022 - Current

Omdena Serbia Chapter

- Developed a time-series AI predictive system to mitigate flood risks in Belgrade using historical weather and hydrological data.

Omdena Lublin Chapter

- Developed a conversational AI chatbot for people affected by high inflation and increased cost of living providing financial assistance.

B.S.N.L - **Data Scientist**
Thiruvalla, Kerala, India
07/2018 - 09/2021

- Implemented natural language processing techniques to analyse customer feedback sentiment and identified key drivers of satisfaction, leading to a 10% increase in customer satisfaction scores.
- Collecting bandwidth usage data from transmission CPAN nodes, and from other MPLS and mobile divisions and creating a time-series prediction for forecasting future requirements for augmenting current transmission systems with additional line cards.
- Developed machine learning models to predict customer churn and collaborated with marketing team to design targeted retention campaigns, resulting in a 15% decrease in churn rate.
- Predicting allocation of new nodes and additional bandwidth resources connecting each nodes between transmission stations based on past data.
- Create data-focused presentations using telecom data and generate dashboards and reports to examine trends.

Websites, portfolios

- https://sreejithvn.github.io/

Certifications

AWS Certified Solutions Architect Associate - 98%
AWS Certified Developer Associate - 95%
Microsoft Certified Azure Data Scientist Associate - 86%
Microsoft Certified Azure Developer Associate - 86%
Cisco Certified Network Associate

Skills

- Python (Scikit-learn, Pandas, Numpy, Matplotlib, PyTorch, TensorFlow, Keras, Streamlit, Telnetlib), SQL, PySpark, Boto3
- AWS services: SageMaker, Pipelines, Step Functions, Glue, Athena, EC2, ECS, S3, DynamoDB, RDS, Lambda, Data Wrangler
- Natural Language Processing: SpaCy, Textacy, NLTK, Hugging-face Transformers, BERT, Gensim, Word2Vec, BlazingText, Word Cloud, Information Extraction, Chatbots, Text Classification, Sentiment Analysis, Topic Modelling, Clustering

B.S.N.L - Telecom Network Operation Engineer

Thiruvalla, Kerala, India

03/2010 - 06/2018

- Created an OS agnostic desktop GUI application in python for monitoring packet transport systems, which was adopted by Network Monitoring Centre, enabling efficient parallel monitoring of multiple systems.
- Automated several manual repetitive tasks such as backing up transmission system configuration files and logging system bandwidth loads with python and bash scripts and regular cron jobs.
- Implemented MPLS-TP based packet transport network in BSNL, where we carried out acceptance testing for initial rollout in our state and executed the same within 6 weeks.
- Provisioning and maintaining services via long-distance optical transmission systems such as SDH, DWDM, CPAN and OTN based on multiple vendors like Cisco, Huawei, ZTE, Tejas, UTL and FiberHome.
- Coordinating with Network Operations Centre for planning and designing new projects such as extending OTN, CPAN and 4G rollout media in BSNL.
- Greatly appreciated by higher ups for the quick migration to packet transport systems from SDH, and for the eagerness in learning all new OAM features, by extensive research and later conducting training sessions for entire STR wing.

Projects

Deploy an end-to-end sentiment analysis model in AWS

Tools: AWS SageMaker, Step Functions, Pipelines, TorchServe, Transformers, PyTorch, Spacy, Scikit-Learn, Argparse

Zero-shot classification for Long text data with NLI

Tools: Transformers, PyTorch, Pandas, Streamlit, AWS EC2, Docker

Customer review analysis of Telecom data

Tools: SpaCy, Textacy, NLTK, Word Cloud, Scikit-Learn, Regex, Sqlite3, Pandas

Time series energy prediction with AWS forecast

Tools: AWS Forecast, ARIMA, Prophet, Python, Pandas, Boto3, AWS S3

GUI application for monitoring CPAN transmission systems

Tools: Python, PyQt, Telnetlib

Conversational AI Chatbot for Financial Assistance

Tools: SpaCy, NLTK, Transformers, Streamlit

- Methods: XGBoost, Random Forests, Ensemble methods, Clustering, PCA, Optimisation, Statistical analysis, A/B testing, Time Series, Deep Learning, Reinforcement Learning
- Development: Git, GitHub, Linux/Unix, Mac, Windows
- Deployment: AWS, Azure, Docker
- Data Visualisation: Streamlit, Tableau, Power BI, Matplotlib, Seaborn
- Networking: L2/L3 Routing and switching, Network security and Administration, L2 VPN, MPLS-TP
- Machine Learning, Cloud Computing, Data Analysis, Product Development, Analytical Skills, Problem Solving, Planning, Data Modelling, Statistics, Research, Communication Skills, Written Communication

Education

12/2022

University of Liverpool

Liverpool

Master of Science: Data Science and Artificial Intelligence - 80%

07/2009

Government Engineering College

Thrissur

Bachelor of Technology: Electronics and Communication - 74%