Prudhvinath Reddymalla

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Work Experience

10.2020 - Present

Consultant - Data Science

Alter Solutions Deutschland GmbH, Düsseldorf, Germany.

04.2021 - 08.2021

Project: ESG Sustainable investments Role: Junior Data Scientist

Tools and Technologies: R, SAS, Perl, JSON, Bitbucket, Confluence

- Developed ESG (Environmental/Social/Governance) Engine & Solutions that are responsible for sustainable investments.
- Extacted the data from vendors and processed based on Engine principles to generate sustainable investment signals.
- Derived revenue and expenditure, Carbon emissions formulae for the data according to EU Taxonomy Regulation.
- Ran monthly production signals ensuring the quality of the results.
- Performed intelligent detection and fixing of data issues, breaks, etc.
- Performed statistical analysis and the business logic coding.

01.2021 - 03.2021

Project: **Group Retail Portal** Role: **Data Analyst & AWS Cloud Support** Tools and Technologies: AWS S3, EC2, CloudWatch, Python, Confluence, Kanban

boards, Postman

- System monitoring with Elastic Search, logstash and Kibana
- Created data visualizations using Kibana logs
- Made deployments using bamboo
- Resolved important Level 3 tickets.

10.2021 - Present

Inhouse roles and responsibilities

Tools and Technologies: AWS SageMaker, Python, MS Office

- Working on AI Usecases for Industries and Banking sector
- Developing Industrial AI solutions and supporting other inhouse solutions
- Active member of Improvement board that acts as voice of each employee with management.
- Active member of Cloud Guild that promotes the importance of Cloud usage.
- Promoting the importance of AWS Sagemaker among all other cloud services.

08.2019 - 06.2020

Student Research Assistant

Fachhochschule Südwestfalen, Soest, Germany.

- Data Analysis and Visualization for Predictive maintainence for a peeling machine.
- Derived multiple insights from the sensor data by performing feature engineering.
- Coding Reinforcement learning environments for academic tasks.
- Implemented and collected results of hypotheses generated by PhD students.

09.2015 - 03.2018

TRMS Investigator - German

Amazon Development Centre, Hyderabad, India

- Fraud risk analysis based on the data generated by customer (customer behaviour analysis)
- Eliminated credit risk based on the previous order history
- Created new SOPs based on the ongoing fraud patterns and modus operandi

Education

04.2018 - 08.2020

Master of Science in Systems Engineering and Engineering Management

Fachhochschule Südwestfalen, Soest, Germany

German Grade: 1.9

Focus areas: Machine Learning, Reinforcement Learning, Advanced Production Engineering, Modelling and Simulation of Mechanical Systems.

Other areas: International Project Management, Integrated Management and Business & Engineering.

Master Thesis: "Throughput Maximization of Job-Shop Scheduling Problems (JSSP) using Graph Networks in Reinforcement Learning (RL)"

Fachhochschule Südwestfalen, Soest, Germany

German Grade: 1.7

- Developed Novel Graph network RL environment for a job shop scheduling problem.
- Solved the problem using Proximal Policy Optimization (PPO) and Actor-Critic algorithms.
- Proved that Graph structured RL environment yields better convergence in productions systems than a normal python coded RL environment.

09.2011 - 04.2015

Bachelor of Technology in Mechanical Engineering

Jawaharlal Nehru Technological University Hyderabad, India German Grade: 1.9 Focus areas: Machine design, Production Engineering, Kinematics and Dynamics of Machines, Operations Research.

Certifications

- Amazon Web Services (AWS) Certified Machine Learning Speciality. (Currently ongoing)
- Amazon Web Services Certified Cloud Practitioner (Credential Id: QCTS60DJKNREQ6CE)
- Lean Six Sigma Green Belt. (Credential Id: 18671948)
- **Reinforcement Learning Specialization**, Alberta Machine Intelligence Institute, Coursera.
- Deep Learning Specialization, deeplearning.ai, Coursera.
- Celonis Data Analyst and Data Engineer, Celonis Academy

Academic Projects

Generative Adversarial Networks (GANS)

Currently, working and reading on tabular GANs. Previously, worked on GANs with Image data.

Neural Style Transfer (NST)

Developed a basic Pytorch NST model based on Neural Algorithm of Artistic Style as a part of Hackathon organised by Tvarit GmbH.

Reinforcement Learning Projects

Prepared environment for an n*n dynamic Grid World with wall blocks Environment for an RL agent.

Industrial Data

Comparison of Neural Networks and Gradient Boosting Techniques (XGBoost and AdaBoost) for Fault detection and identification of the Tennessee Eastman Process.

Skills

Skillset: Deep Reinforcement Learning, Machine Learning, Advanced Production Engineering, Programming. **Programming Languages:** Python, MATLAB & Simulink, SQL, SAS, and R.

Python Libraries: PyTorch, Keras, TensorFlow, Gym, Scikit-Learn, XGBoost, Numpy, Pandas, Plotly, Seaborn, Matplotlib, Flask.

Tools and Technologies: AWS, Spyder, PyCharm, VS Code, Sublime Text, Jupyter Notebook, Git, Minitab, Tableau, Celonis, AutoCAD, Catia V5, MS Office, MS Project, MS Publisher.

Operating Systems: Windows, MacOS, Linux (Ubuntu).

Interpersonal Skills: Public speaking, Team player, Adaptability.

Languages: English, German, Hindi, Telugu.