# 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.
- Extracted 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.

## 10.2020 - 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 Certified Machine Learning Speciality (Credential Id: HBHXWW3JEJQE1SW1)
- 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.