SAI MORAPAKALA

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EDUCATION

Master of Science in Data Science *May 2023*
Luddy School of Informatics, Computing, and Engineering, Indiana University

Bachelor of Technology in Computer Science and Engineering *June 2018*
School of Engineering, Amrita Vishwa Vidyapeetham

TECHNOLOGY EXPERIENCE

Programming Languages	Python, Javascript, SAS, R, Bash
Frameworks & Libraries	Scikit-learn, Pytorch, scikit-image, Pandas, PyQt, Numpy, PySpark, Plotly, MatplotLib, Seaborn, Boto3, Tensorflow, albumentations, React JS, Flask,
Technologies	Git, Docker, AWS Cloud Services, Github Actions, MongoDB, Selenium
Certifications	AWS Certified Developer Associate, AWS Certified Cloud Practitioner

WORK EXPERIENCE

TE Connectivity *April 2020 - July 2021*
Machine Learning Engineer *Bengaluru, India*

- Developed Machine Learning pipelines and Deployed them on Amazon Web Services(AWS) that comply with the MLOPs principles of Fault-Tolerant Automation, Versioning, Testing, and Monitoring.
- Worked along with Sr. Data Scientists to develop a Cross-Selling & Up-Selling Part Recommendation system.
- Designed, Developed and Deployed a machine learning pipeline that uses AWS Forecasting Service to deliver sales forecasts every month.

Caterpillar *July 2018 - February 2020*
Associate Data Scientist *Bengaluru, India*

- Developed a comprehensive data analysis tool, which is estimated to save about $200,000 per year.
- Improved the efficiency of an automated data engineering process by reducing its time of execution by 95%.
- Trained an *object detection model* using the Retinanet architecture, to detect gear defects. A Proof-of-Concept project designed to aid equipment inspectors inspect gears and classify them.
- Evaluated Amazon Web Services(AWS) as a future analytics platform, by Re-engineering and deploying a machine learning model that predicts *Remaining Useful Life (RUL)* of an off-highway truck's engine using service history and machine usage data.

ACADEMIC PROJECTS

Bayesian Machine Learning *August 2021 - November 2021*

- Implemented Bayesian Machine Learning Algorithms from scratch using NumPy.
- Used cross-validation to train the model and measured their performance based on learning factors and error measures
- Algorithms Implemented: *Naive Bayes, Bayesian Linear Regression, Generalized Linear Model, Bayesian Model Selection, and Kernel Methods with Gaussian Process.*

Ice Tracking *November 2021*

- Implemented Viterbi-Decoding algorithm using *Bayesian Networks and Hidden Markov Model* for boundary detection of air-ice and ice-rock from a *radar echogram.*
- Used three different Bayesian Networks and evaluated each methods performance.

Pichu, Pikachu & Raichu *October 2021*

- Designed a game playing AI bot for an abstracted game of chess which uses the Minimax algorithm with Iterative deepening and Alpha-Beta Pruning.