LAXMI NADIMPALLI

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EDUCATION

NC State University, Raleigh, NC   May 2020
Master of Science, Operations Research   **GPA: 3.741**

Relevant Courses:*Data Structures and Algorithms,OOPS , Advanced Business Intelligence, Database applications, Statistics, Machine Learning*

Shiv Nadar University, Uttar Pradesh, India   May 2017
Bachelor of Technology, Engineering   **GPA: 3.8**

SKILLS

- **Programming Languages**: Python, R, SQL,Spark, C, Java,Unix(BASH), Scala, SAS
- **Libraries** : NLTK, spaCy, TensorFlow, Pandas, Numpy, Scipy, scikit-learn, MLib,Matplotlib, PySpark, PyTorch
- **Data Visualization / DB**: PowerBI, R Shiny, Tableau, D3, Sql, NoSql(Cassandra), MongoDB, Neo4j (Graph database), ElasticSearch
- **Big Data(Data Engineering)**: Kafka, Apache Hadoop- Apache Spark, Hive, MapReduce, Impala, YARN, Sqoop, Flume,Apache Kafka, Microsoft Azure Machine Learning, AWS (EC2, Message Queue,Dynamo DB, Lambda,API Gateway)
- **Statistics and Machine Learning**: Natural Language Processing (NLP),Hypothesis testing, ANOVA, Bayesian Inference(STAN), Multivariate and Longitudinal Data Analysis, Analysis,Naive Bayes, Anomaly Detection, Decision trees, Random Forests, Ensemble learning, Unsupervised Learning, Hierarchical Clustering ,XGboost, Clustering, CNN, RNN and other Deep Learning Architectures
- **Web Technologies and Orchestration:** React, Node.js, JavaScript, Flask, HTML, CSS, Docker,Kubernetes

WORK EXPERIENCE

ABB Inc., Cary, NC – *Software Developer/ Data Scientist Intern*   May 2019 - May 2020

- Developed PoC for a Demand Forcasting application using ARIMA and LSTM (Long-short-term-memory networks) models in Azure Databricks while using MLFlow for model management. The project helped in understanding the Latency tradeoffs compared to deployment on Local Machines.
- Built Predictive Model application for Optimal Pricing of the entire product range of ABB's IAMA Business using ML approaches (Bayesian Regression, Market Basket Analysis etc.) and including economic indicators. Integrated the Output of the algorithms to PowerBI dashboards in production environment. Helped in improving 10-15 percent revenue increase for this division.

Cognizant Ltd., Kolkata – *Programmer Analyst Trainee*   Nov 2017 - July 2018

- Developed REST APIs, asynchronous queuing systems, front end and integration between server and client for dashboards.
- Developed a Node application to simplify development and testing process by reading data sent by weather sensors and designed shell scripts to backup databases to Amazon EC2 servers. Also, developed Microservices for data migration tools. Built and managed Docker container clusters. Employed Kubernetes to orchestrate the deployment, scaling and management of Docker Containers on AWS, Elastic Search, Lambda functions and Kafka

ACADEMIC PROJECTS

- **Neural Networks (CS 522, CS 591)**   Fall 2018, Spring 2019

  – Implemented modified Convolutional Neural Networks VGG-16, Google Net, Inception on Chest X-ray image dataset to detect lung disease in lung x-rays and achieved 0.8 accuracy to detect the diseases. Implemented the project on TensorFlow and PyTorch frameworks in Python.

  – Using Word vectors generated by Google's GloVe as an underlying data model, Developed and Compared CNN, RNN and HAN for the task of text classification of IMDB reviews dataset (Natural Language Processing)

  Recommender Systems (CS 591)   Spring 2019

  – Created an ALS based Recommender system using Apache Spark to suggest new musical artists to the user based on their listening history (implicit feedback) and performed parameter sweep to select optimal parameters. The model achieved a score of 95.294% for rank 10

  – Used Deep-walk to generate random walks over the heterogeneous information network(low dimensional graph produced vectors implemented on word2vec) to predict the user-movie pair on IMDB datasets.

- **Bayesian and Longitudinal Modeling (ST 537, ST 540)**   Fall 2018, Spring 2019

  – Using Random Coefficient Models of Bayesian linear regression and Spline Models of Longitudinal Regression predicted the International roughness index of the road network in North Carolina State.