

Krishna Murali

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[LinkedIn](#) | [Portfolio](#) | [Github](#)

TECHNICAL SKILLS

Programming Languages: SQL, Python, C#

Statistics: Regression, ANOVA, Multivariate and Longitudinal Statistics, Hypothesis Testing, Experimental Design

Machine Learning: Clustering, Binary and Multiclass Classification

Cloud: AWS

Big Data: Hadoop, Spark, Hive

Deep Learning Frameworks: Tensorflow, Keras

PROFESSIONAL CERTIFICATIONS

AWS Certified Solutions Architect – Associate

Aug '20

Training and Certification in SQL – by Stanford Lagunita

Sep '16

PROFESSIONAL EXPERIENCE

Software Developer Intern – John Deere

Aug '19 – Present

- Awarded research assistantship and grants from North Carolina State University and John Deere.
- Analyzed data from PLC controllers and sensors.
- Efficient control of shop floor quality process flow by developing a centralized MES built on C# and MS SQL Server from the analyzed data.
- Developed a Tableau dashboard giving insights on the Quality Audit process of machines manufactured each day.

Data Scientist – LatentView Analytics, Chennai, India

Dec '17 – Jul '19

Client – Sysco Corporation

- Provisioned Data Lake solution utilizing Kimball data warehouse architecture for the largest food logistics company in the United States.
- Constructed scalable ETL pipelines using PySpark deployed in Elastic MapReduce clusters to process the consolidated table with 250 dimensions and 40 business metrics and facilitate the guided ad-hoc interface.
- Created scheduler interface for generating scheduled big data reports using PySpark.
- Developed an interface on top of the data lake to generate SQL queries from JSON input, using Python deployed in AWS Lambda, for business analysts to churn out reports.
- Developed another interface for implementing common ML algorithms (Regression, Logistic Regression, XGBoost, Random Forest, SVM, Naïve Bayes, KNN) through EMR notebooks fetching specific datasets from the data lake.
- Performed Feature Engineering and implemented Recommendation engine which predicts Cuisine type based on previous transactions of customers using Spark MLlib.
- Analyzing the data present in data lake using AWS Glue, Athena, and Redshift Spectrum.

Systems Engineer – Infosys Ltd., Mysore, India

Mar '17 – Dec '17

- Constructed denormalized tables in MSSQL server to facilitate business analytics of a Fortune 500 client.
- Developed a tableau dashboard to track the user query performance.

EDUCATION

Master's in **Integrated Manufacturing Systems Engineering** – Minor in **Statistics** - North Carolina State University, Raleigh NC **GPA: 3.96/4** Aug '19 – May '21

Bachelor's in **Manufacturing Engineering** - College of Engineering, Guindy, Chennai, India **GPA: 7.95/10** May '16

ACADEMIC PROJECTS

- **Deep Neural Network Architectures for defect detection** Feb '20 – Mar '20
 - Detecting defects on textured surfaces using Image segmentation to detect the pixels where the defect occurs in the given image. Implemented approach of U-Net Convolutional networks paper.
- **Portfolio Analysis using Non-Linear programming methods** Nov '19 – Dec '19
 - Implemented various non-linear programming methods to compute minimum of a function in Python. Chose Cauchy's method of steepest descent and exterior penalty method to construct the optimum portfolio balancing max returns and volatility.