**Durga**

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210 284 6622

Sr. Machine Learning Engineer

**Summary**

Passionate machine learning engineer with and 15+ years of overall software engineering with 5 years of industrial experience in Machine Learning proven technical expertise in developing and implementing high availability systems deployed on cloud platforms, large scale algorithms to significantly impact business revenues and guide businesses in taking quality data-driven decisions.

**Skills**

**Programming Languages:** Python, PySpark, Java, JavaScript, Nodejs, Ruby

**Machine Learning:** Classification, Regression, Decision Trees, Ensemble Techniques, KMeans Cluster,

Pandas, NumPy, Scikit-Learn

**Deep Neural Network:** DNN, CNN, RNN, LSTM, TensorFlow, PyTorch

**Natural Language Processing**: Classification, Sentiment Analysis, NLTK, Text Blob, BERT, Word Embedding

**Cloud Platforms:** AWS, AI on AWS, AWS Sage Maker, GCP, Vertex AI

**Container Platforms:** Docker

**UI Frameworks:** AngularJS, Ruby on rails, Angular, jQuery, Flask

**ORM Frameworks:** Hibernate

**Spring Frameworks:** Spring Boot

**Databases:** Oracle, Microsoft SQL Server, Postgres, MongoDB, AWS Dynamo, GCP Big Query

**CICD**: Jenkins, Groovy

**Database Script Management:** Liquibase, Flyway

**Infrastructure As Code:** Terraform, CloudFormation

**Experience**

**Sr. Machine Learning Engineer, Michaels Stores Inc - Irving, TX Dec 2021 – PRESENT**

* Creating SQL scripts to consolidate the data required for machine learning models and building data pipelines in **Airflow** and **Dataflow**
* Building scalable **ETL** frameworks and deploying them on **GCP Dataflow** using Jenkins **CI/CD**
* Working with pyspark clusters like **GCP Dataproc** to submit pyspark jobs
* Performing **exploratory data analysis (EDA)**, **feature engineering** for machine learning models
* Building **feature store** database in **BigQuery** which can be used for all machine learning models
* Building recommendation models like products that users may like, similar products, popularity models etc. using **Content Based**, **Collaborative Filtering**
* Scheduling machine learning pipelines in **Airflow** for **batch predictions**
* Containerizing **content moderation** model using **Docker** and deploying it into cloud for real time model predictions and monitoring their performance
* Building **user stitching** models which can be used for building **personalized** recommendations
* Building **notification system** for **targeted customers** and **abandoned cart**
* Working object-detection models like **Yolov5** and integrating with **OpenCV**
* Training, validating, deploying and evaluating ML models using **ML-Flow** and **GCP Vertex AI**
* Writing Infrastructure as code using **terraform** and performing **GCP Cloud Cost Optimization**
* Working closely with data science team and productionalizing the ML models
* Researching Deep Learning models like **Stable Diffusion** for Digital Art, **AR** to build in-store waypath

**Machine Learning Engineer, Blackhawk Networks Inc - Lewisville, TX Aug 2019 – Dec 2021**

* Creating SQL scripts to consolidate the data required for machine learning model and building data preprocessing python script to push the consolidated data to **AWS s3**
* Performing exploratory data analysis, dealing with class imbalances and dimensionality reduction / feature engineering while building the machine learning models
* Building classification machine learning models like **Logistic regression**, **Decision tree**, **random forest**, **XGBoost** and other ensemble models to assist risk operations team in order approval decision
* Building classification machine learning models for task approval so that we can reduce/eliminate manual process
* Building recommendations model by identifying popular selling gift cards using popularity based, content based and **market basket analysis (MBA)**
* Training and validating machine learning models using **AWS SageMaker**
* Building **SageMaker** pipelines to perform training, validation, **hyper tuning**, deploying and evaluating machine learning models

**Sr. Software Engineer, Charter Global Inc - Dallas, TX May 2012 - Aug 2019**

* Performing **Exploratory Data Analysis (EDA),** dimensionality reduction and feature engineering
* Creating **python Flask APIs** for the machine learning models
* Integrating UI with **Flask API** so that we display the recommended products
* Integrating the web application security with **Single Sign On** and **JWT**
* Creating UI screens using **HTML**, **JavaScript**, **CSS** and **Angular 5** framework
* Building back-end REST services using **NodeJS** and **MongoDB** and **Microservices** using Node JS which can be deployed as **AWS Lambda** functions
* Building JAVA REST services using **Spring Boot** and **Aws DynamoDB**
* Integrating with **AWS** **s3** API to upload files, using other AWS services like **SNS topic**, **EC2**, creating **docker** containers and deploying them on AWS **ECS**
* Writing infrastructure as code using AWS cloud formation templates to deploy the code using continuous integration and continuous deployment **(CICD) Jenkins**
* Participating daily **Agile** scrum meetings and fixing Integration, System testing and production defects

**Sr. Software Engineer, Tata Consultancy Services – San Antonio, TX June 2007 - May 2012**

* Developing UI screens using **JSP, Servlets** and **Struts Framework**
* Designing and developing **web services (SOAP)** or **EJB**s
* Using **IBM IFW framework** to model the system and writing database access code using **Hibernate ORM** Tool
* Creating **XOM** and BOM Projects and implementing business rules in **iLOG Jrules**
* Integrating component level services with the Business Rules and building java codes using **Ant** script
* Fixing defects in System Test (ST) and resolving production issues
* Co-ordinating offshore team from onsite

**Certifications**

* IBM Certified Application Developer - Web Sphere iLOG Jrules 6.x - 2010
* Sun Certified Java Programmer 1.5 - 2008

**Education**Jawaharlal Nehru College of Engineering and Technology, Hyderabad, India – B. Tech in Computer Science & Engineering

Texas McCombs School Of Business, Austin, Tx - Post Graduation in Artificial Intelligence and Machine Learning