NAVEEN CHILUMULA

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EMPLOYMENT

Express Scripts
Programmer Analyst · Jan. 2018 to Current

Machine Learning
- Work with Technical and Business Product owners to understand a problem technically and within the business context
- Deploy Auto training model written in python shipped in a docker container to a server using Ansible via Jenkins
- A front end application is written in Reactjs to visualize charts using recharts and a backend application is written using spring boot, both deployed to PCF
- Expert knowledge writing & debugging python applications and written a python package to fetch configuration stored in the spring config server
- Resolving firewall issues from server to databases including DB2, Teradata, & MongoDB and setup SSL connection to all the databases involved
- Continuously work with business partners to validate and enhance the machine learning model
- Setup connection between Mainframe and server to send a file using FTP and setting up the application to send mails using internal mail relay server to users
- Setting up authentication using LDAP server and configure Nginx to load balance & proxy requests made to the backend application
- Collaborate with other teams to resolve issues in the app`s dependencies
- Present the application to all the employees to spread awareness on the technology and business problem it is solving

Optical Character Recognition
- Use the tesseract-OCR library to recognize text by extracting answers from a handwritten form and save hundreds of hours of manual work to analyze the form. Saving patients a lot of time and the organization a lot of expenditure
- Train a new language to understand Domain-specific language and other special characters in the forms
- Containerize the application using docker
- Written a python application to send the answer in XML format to another application

Spring, Kafka & MQ
- Written spring boot applications to consume Kafka messages, transform it and send to IBM MQ
- Used Jolt transformation library to restructure the JSON messages
- Store the MQ send success & failure messages to MongoDB, send the success messages from MongoDB to DB2 and validate it against business records

IBM ODM
- Install the Operational Decision Manager enterprise-wide to write business rules easily which eliminates if conditions in code & doing many code releases
- Setup LDAP authentication to allow certain users only and restrictions to apps they are allowed to view/edit

Hyperledger Fabric Enterprise Blockchain
- Architect and Administer an enterprise hyper ledger fabric blockchain network deployed on a cluster using Kubernetes
- Write chain codes in javascript and Go. Manage channels, MSPs, Certificate Authorities, CouchDB and peer nodes instances in a modular fashion using docker containers
- Developed a front end using angular js consuming data from a backend server using nodejs

Focus IT inc.
Data Scientist · Jan. 2017 to Jan. 2018

Yelp Dataset
- Addressed yelp`s problem in classifying 200K images and learning from 3M text reviews.
- Used Spacy to pre-process the text, and gensim for Phrase modeling, Topic modeling, Vectorizing the words, reduced the dimensions of these vectors using t-SNE, visualized the words using bokeh. Designed data science pipeline for question answering, searching and providing recommendations.
- Used Tensorflow to build a standard neural network for image classification. Used python generators, optimized the code to perform operations on less memory on 4 cores. Obtained 80% accuracy using 64x64 images which are hard for a human to recognize too.

New York citibike
- Citi bike`s huge bike share system is facing a problem of transporting bikes to a station which runs out on bikes to keep the customer flow constant.
- Integrated billions of bike rides data from citibike`s website, Google Distance Matrix API, NYC weather and performed Data quality check, made interactive geographic visualizations. Time series prediction using neural networks to estimate the number of rides per day & number of bikes to be transported to a station every 4 hours if it runs out on bikes. Obtained 95% accuracy, considering the values in the first standard deviation.

SKILLS

LANGUAGES: Python, Java, Javascript, Bash, Go
CLOUD/CONTAINERS/CICD: AWS, Openshift, Kubernetes, Docker, Jenkins, PCF, git
OPERATING SYSTEMS: RHEL, Ubuntu, Windows
ENTERPRISE BLOCKCHAIN: Hyperledger Fabric, Hyperledger Composer, Blockchain network admin
MACHINE LEARNING: Pandas, Sklearn, multiprocessing, xgboost, random forests, Neural networks, anomaly detection, selenium, bokeh, Apache Spark
WEB DEVELOPMENT: Spring boot, Reactjs, Flask
DATABASES: MongoDB, Teradata, MySQL, Redis, DB2
SOFTWARE DEVELOPMENT METHODOLOGIES: Agile, Scrum, XP

EDUCATION

University of Houston
Master of Science Electrical Engineering 2016

Gokaraju Rangaraju Institute of Engineering and Technology
Bachelor of Technology Electronics and Communications Engineering 2015