ROHIT RAJESH KHATU.

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EDUCATION

Northeastern University — Boston, MA
Master's in Data Analytics, concentration Machine Intelligence GPA: 3.93 — *December 2021*
Relevant Courses: Probability and Statistics, Big Data, Data Visualization, Intermediate Analytics, Data Mining.

Mumbai University, Saraswati College of Engineering — Maharashtra, India
Bachelor of Engineering, Computer Engineering — *May 2018*
Relevant Courses: Operating Systems, Big Data, Soft Computing, and Data Structures.

TECHNICAL SKILLS

Programming Languages: Java, Python, R, SQL, JavaScript, Shell Scripting.
Web Development: HTML, CSS, Bootstrap. Apache Tomcat.
Database/ Big Data Technologies: MySQL, MariaDB, Hadoop, HDFS, Sqoop, Hive, MapReduce, Spark.
Cloud Technology and Automation: Docker, AWS (EC2, S3), Azure, GCP, VMware, Jenkins, bamboo, Jira, chef.
Tools and Packages: GIT, MS Office, Tableau, PowerBI, Anaconda, Scikit-learn, TensorFlow, PyTorch, NodeJS, NLTK.
Statistics: Hypothesis Testing, Descriptive Statistics, A/B Testing, ANOVA, Chi-Square Test, Pearson Test.
Machine Learning Algorithms: Linear Regression, Ridge and Lasso Regression, Logistic Regression, KNN, Naïve Bayes, K-Means clustering, Apriori, Decision Tree, Random Forest, Boosting Algorithms, PCA, SVM, CNN, LSTM.

WORK EXPERIENCE

Dtonomy Inc. — Cambridge, MA
Machine Learning Software Engineer Intern (Team Size: 2) — *January 2021 – June 2021*

- Built and Refined **random forest** model for **pattern discovery** by performing feature addition and hyperparameter tuning. Deployed the model as a service on the **Docker** container to identify malicious URLs and provide analysis.
- Constructed an **O365** node-red workflow using **NodeJS**, **JavaScript**, **HTML**, **CSS,** and **python** to set inbox rules to block spam mails with keyword and to block sender with id, leveraging **MS Graph API** and **Azure** app registration.
- Developed **selenium** script automating request and receipt of consent for scopes of graph API used to access and set the inbox rules. Created inject node in node-red to trigger a workflow based on time, time zone and various data types.
- Created a **PowerShell** node in nod-red to run the PowerShell script. Achieved OS independence for the node by installing PowerShell dependencies into the docker container and deploying the node on top of the container.

Mindcraft Software PVT.LTD. — Mumbai, India
Associate Consultant (DevOps Developer) (Team Size: 2) — *August 2018 - December 2019*

- Leveraged **DevOps** technology; **Jenkins**, docker, and **chef** for parameterized automated deployment of **MySQL** server/client as a cluster on multiple servers simultaneously which reduced deployment time to 2 Hours from a week.
- Developed **CICD** pipeline for automated deployment of Loan disbursement Web application on **Tomcat** server running on **AWS EC2** instance for DEV/UAT/PROD environment using sole Jenkins job, achieved end to end testing.
- Developed and triggered **Shell/Python scripts** using **cron** jobs and Jenkins to perform database/WAR file backup, user/database/table creation, set DB access rights for user as per **database design,** and for health monitoring of service.
- Documented **Proof of Concept** of engineered software, CICD pipeline, and DB design for Universal Overseas Bank, Singapore and Fullerton, India, worked under **Agile SDLC**. Working knowledge of finance and insurance sector.

ACADEMIC PROJECTS

Credit Card Fraud Detection: — November 2020

- Imported and Analyzed 700K transactions from **HDFS** in python using **PySpark**. Converted **JSON** to a data frame. Performed data cleaning using **NumPy**, **pandas**; EDA using **matplotlib**, **seaborn**. Visualized correlation among target and features using Corr plot. Oversampled data to handle imbalance. Standardized data using standard-scalar.
- Build **GBM**, Random Forest, and **sequential model**, Random forest better in predicting if a transaction is fraud.

Product Review Sentiment analysis: — September 2020

- Analyzed 20 years of amazon product review using python, segregated reviews based on ratings, below 2 stars as negative, equal to 3 stars as neutral, and above 3 as positive, built bar plot to visualize data count of all three sentiments.
- Converted the data using **TFID** vectorizer, constructed ML models **Naïve Bayes**, **logistic regression**, and **SVM**, choose logistic based on metrics, saved as **PKL**, build web UI using **flask** to accurately predict the sentiment of a review.

Facial Recognition: — August 2020

- Developed a python program using **OpenCV** to generate train and test datasets of facial images.
- Rendered a neural network model by using the **VGG16** transfer learning technique, **Keras**, and **TensorFlow** for feature extraction and classification of images. Performed hyperparameter tunning and saved model in **h5** format.
- Imported the model, provided external IP webcam support to use external devices for effective face recognition.

Crimes in Boston Data Analysis: — February 2020

- Analyzed a million entries on crimes occurred in Boston from year 2016-19 in **R**. Developed dashboard using **RShiny** to display changes in crime rate. Used **ARIMA** forecasting model to predict the change in crime rate for six months.

CERTIFICATION:

Neural Network and Deep Learning (*Coursera*) — March 2021