

# Dhananjay N. Chaudhari

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<https://www.linkedin.com> | <https://github.com> | <https://medium.com>

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Experienced Machine Learning Engineer with a proven track record of developing and implementing cutting-edge models and algorithms to solve complex business problems. Adept at leveraging advanced statistical techniques and programming languages to analyze large datasets and extract valuable insights. Skilled in designing and training neural networks, implementing deep learning architectures, and optimizing algorithms for maximum accuracy and efficiency. Have sound mathematical knowledge and understanding of machine learning.

## SKILLS:

- Experienced in Machine Learning, Deep Learning, Graph Machine Learning, Natural Language Processing, Statistical Modeling and Analysis, Python, R, Scikit-learn, NLTK, XGBoost, TensorFlow, Keras, Pandas, NumPy, Matplotlib, PySpark, Pytorch, Clustering, Image Processing, SQL, Flask, GIT, Docker, Terraform, Kafka, ArangoDB, Neo4j..
- Machine Learning Algorithms: Demonstrated expertise in developing and implementing various machine learning algorithms such as linear regression, logistic regression, decision trees, random forests, support vector machines (SVM), k-nearest neighbors (KNN), naive Bayes, neural networks, etc. Unsupervised Learning using clustering (K-Means, Hierarchical, DBSCAN).
- Ensemble models techniques like Bagging (Random Forest), Boosting (GBDT), Stacking, Cascading.
- Deep Learning: Proficient in designing and training deep neural networks using frameworks like TensorFlow, Keras, HuggingFace. Familiarity with architectures such as CNN, RNN, GAN, LSTM, GRU, Transformers
- Statistical Modeling: Strong understanding of statistical concepts and proficiency in using statistical techniques for data analysis, hypothesis testing, A/B testing, and predictive modeling.
- Feature Engineering: Experience in identifying, extracting, and engineering relevant features from raw data to improve model performance. Knowledge of techniques like dimensionality reduction, feature selection, and feature scaling.
- Big Data and Distributed Computing: Familiarity with tools and technologies for handling big data, such as Apache Hadoop, Spark, or distributed computing frameworks like MapReduce.
- Proficient in deploying and managing Machine Learning applications on AWS, including Sagemaker, Lambda, S3, Step Functions, ECR, EC2, ETL Pipeline
- Hands-on Experience on AWS Quicksight for analytics.
- Proficient in implementing end-to-end MLOps pipelines.

## PROFESSIONAL EXPERIENCE:

### METRICSTREAM INFOTECH - R&D

**Sr. MLE | Bangalore, KA | Jun 2021 – Present**

Projects Overview:

#### AISPIRE

- AI powered analytical tool.
- Trained multiple machine learning models to provide recommendations and AI capabilities to Quicksight analytical tool.
- Created end to end pipeline for data processing, training and post processing.
- Created charts and graphs on AWS Quicksight and integrated Quicksight with multiple models and other AWS services.
- Created resources with cloud formation.
- Skills: Python, AWS cloud, Git

## ISSUE CLUSTERING WITH GRAPH LEARNING

- Graph based machine learning to cluster issues to different themes.
- Created pipeline retraining and deployment of model on AWS.
- Create AWS resources with Terraform.
- Used tf-idf, USE, Glove for embedding and K-means, Affinity Propagation for clustering.
- Skills - Python, Scikit learn, StellarGraph, Pandas, AWS-sagemake, AWS Step Function, AWS Lambda for deployment.

## TATA CONSULTANCY SERVICES - Digital Interactive Unit (DIU)

### I. T. ANALYST | MUMBAI, MH | Aug 2015 – Jun 2021

Projects Overview:

#### PRODUCT RECOMMENDER FOR TELLERS

- Worked on implementing a product recommender system using XGBoost library.
- We had to predict a product from 350+ products based on given features.
- Converted categorical features into numerical features using One Hot Encoding and Response Coding.
- Trained data on various models like KNN, Naïve Bayes, ensemble models like Random Forest, GBDT.
- Deployed model using Flask.
- Skills – Python, Scikit learn, XGBoost, Pandas, NumPy, PyCharm, Flask.

#### SMART MAIL CLASSIFIER AND REPLY

- Developed a Smart Mail Classifier and Reply system for Payment Support Group using TensorFlow.
- Used CNN for the text classification.
- Performed various types of preprocessing on text data and convert text data into a numeric form using techniques like BOW, TFIDF, W2V.
- Implemented research paper “CNN for sentence classification” from New York University and fine-tuned parameters based on our dataset.
- Tried with Deep Learning algorithms LSTM, CNN.
- Deployed model using Flask.
- Skills – Python, NLTK, TensorFlow, Pandas, NumPy, PyCharm.

#### DIGI VOUCHER

- Developed chat assistant for a mobile application to generate vouchers for banking transactions like cash withdrawal, FD, RD, NEFT, etc.
- Used Naïve Bayes algorithm for Intent classification.
- Implemented client-side in ionic framework.
- Skills – Python, Scikit learn, Pandas, NumPy, PyCharm.

## PERSONAL PROJECTS:

### ELO MERCHANT CATEGORY RECOMMENDATION

- Worked on Elo merchant category Recommendation – A Kaggle Problem.
- This is a Regression Machine Learning problem where we had to predict customer's loyalty scores based on the credit card numbers.
- Performed data visualization using Seaborn.
- Worked on feature engineering to get maximum accuracy and reduce error.
- Performed data cleaning and fill empty values with various data imputation techniques.
- Trained data on various models like Decision Tree, Random Forest, GBDT with K-fold validation.

- Deployed model on Heroku using Streamlit.
- Got into the top 10% on the leaderboard.
- Skills – Python, Scikit learn, XGBoost, Pandas, NumPy, PyCharm, Seaborn.

**BLOG:** <https://dhananjaychaudhari.medium.com/elo-merchant-category-recommendation-kaggle-competition-a-case-study-f4a04f039004>

**SOURCE CODE:** [https://github.com/dhananjaychaudhari26/Elo\\_Merchant](https://github.com/dhananjaychaudhari26/Elo_Merchant)

**LIVE DEMO:** <https://elo-merchant.herokuapp.com/>

## **LANGUAGE TRANSLATION – RUSSIAN TO ENGLISH TRANSLATION**

- Performed language translation (Russian to English) using the Encoder-Decoder model with an Attention mechanism.
- Performed all types of data cleaning and preprocessing on text data and convert text data into fixed-length numerical vector form.
- Used TensorFlow Subclassing to create custom Layers and Models for architecture.
- Deployed Model using Flask.
- Skills – Python, TensorFlow, Pandas, NumPy, PyCharm

**DATA SOURCE:** <http://www.manythings.org/anki>

**SOURCE CODE:** <https://github.com/dhananjaychaudhari26/language-translation>

## **EDUCATION:**

**SHAH AND ANCHOR KUTCHHI ENGINEERING COLLEGE, MUMBAI UNIVERSITY, MUMBAI, MH  
BACHELOR OF ENGINEERING IN COMPUTERS, 2011- 2015**