

# Pranshu Diwan

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Available: **May– December 2020**

## EDUCATION

### Northeastern University, Boston, MA

Khoury College of Computer and Information Sciences

September 2019 - present

*Candidate for a Master of Science in Data Science*

Expected graduation: Dec 2021

Related Courses: Supervised Machine Learning, Algorithms, Linear Algebra and Statistics

### University of Mumbai, Mumbai, India

*Bachelor of Technology in Information Technology*

July 2015 - May 2019

Related Courses: Data Structures, Data Mining, Big Data, Cloud Computing, Calculus

## TECHNICAL SKILLS

<b>Languages</b>	Python, R, Java, SQL, C, HTML5, CSS
<b>Libraries</b>	Tensorflow, Keras, Pandas, NumPy, Scikit-Learn, NLTK, SpaCy, Matplotlib
<b>Cloud, Databases</b>	Amazon EC2, AWS Lambda, Google Cloud Platform, MySql, HSqlDb, Oracle DB
<b>DevOps</b>	Jupyter Notebooks, Flask, Heroku, Git, Agile, Anaconda, Spyder
<b>Soft Skills</b>	Critical thinking, Intellectual curiosity, Effective communication, Management, Leadership

## WORK EXPERIENCE

### Data Science Intern

*Hashtag Loyalty, Mumbai, India*

June 2018 – July 2019

- Implemented a reinforcement learning model to increase email open rates by 2.6%
- Optimized email model to decrease time complexity and run time down to 10ms from 1 second per user and deployed it to a production environment on AWS instance using Flask.
- Researched and presented a detailed report identifying current market trends in the food and beverage (F&B) industry. Defined monetizable Key Performance Indicators (KPI's) for our clients.
- Analyzed user data to predict user buying behavior by RFM LTV analysis, and a recommendation system.
- Created a deep learning model ARIMA to forecast revenue of our clients with an accuracy of 12%.
- Trained a model using Natural Language Processing libraries to tag food items in specific categories.
- Performed in-depth Statistical Analysis and hypothesis testing on data for selection of features.

### Software Development Intern

*Hexaware, Mumbai, India*

June 2017 – July 2017

- Designed a web app and a standalone Java application to perform CRUD (Create, Read, Update, Delete), Search and Import Database operations on employee database.
- Developed the project in code sprints in MVC structure adopting AGILE software development approach.

## ACADEMIC PROJECTS

### Toxic Comments Classification Challenge (Kaggle – Bronze medal)

- Trained a model (ensembled) capable of detecting different types of toxicity - threats, obscenity, insults, and identity-based hate with an accuracy score of 0.9865 on the leaderboard. (Top 7%)

### Item Classification (Unsupervised Learning, NLP)

- Classified food items into specific categories (veg, non-veg, drinks, etc.) by an unsupervised approach using Natural Language Processing and its libraries (SpaCy, Word2Vec, GloVe).

### Facial Emotion Recognition (Deep Learning, Deployment)

- Trained a CNN model on AWS EC2 instance to classify facial emotions like happy, anger, surprise, etc. on the FER 2013 Dataset with an accuracy of 65%. Deployed using Flask. Selected for college exhibition.

## PUBLICATIONS

### Analysis of Facial Emotion Recognition (IEEE)

- Published paper covers datasets and algorithms like Support Vector Machines, Hidden Markov Models, and Convolutional Neural Network used for the task of Facial Emotion Recognition (FER).

### Deep Learning based approaches for Recommendation Systems (Springer)

- Accepted paper studies different Deep Learning methods for recommendation systems highlighting important aspects like design and implementation.

## EXTRA-CURRICULAR

- Literary Secretary, Vidyalankar Institute of Technology Student Council 17-18.
- Lead Organizer Inspire to Empower 2019 (celebrating International Women's day) at Vidyalankar Institute.
- Secretary General, Vidyalankar Institute of Technology Model United Nations 2018.