

# Ritvika Nagula

MACHINE LEARNING ENGINEER · FULL STACK WEB DEVELOPER · DATA ENTHUSIAST

CURRENTLY AVAILABLE

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## Work Experience

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### Trifacta Inc.

San Francisco, CA

MACHINE LEARNING (SE) INTERN

Jan. 2018 – Aug. 2018

- Developed a machine learning model to suggest join keys with a 20% increase in accuracy by wrangling user logs for training data
- Improved performance of the union model by adding constraints to prevent unnecessary predictions from the model on large data
- Integrated a back-end machine learning model providing source pattern to target pattern standardization suggestions with the UI
- Analyzed product logs to determine the new user retention rates and churn values in a conversion funnel

## Education

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### Northeastern University

Boston, MA

MASTERS IN COMPUTER AND INFORMATION SCIENCE - 3.42/4

Sep. 2016 - Dec. 2018

- Machine Learning, Data Mining, Programming Design Paradigm, Managing Software Development, Parallel Data Processing Using Map Reduce, Foundations of Artificial Intelligence, and Algorithms

### National Institute of Technology

Raipur, India

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING - 4.0/4.0

May 2016

- Analysis and Design of Algorithms, Data Structures, DBMS, Operating Systems, Compiler Design, Computer Networks

## Skills

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**Languages:** Java, Scala, Python, R, C/C++, Ruby, SQL

**Frontend Web Design:** HTML5, CSS3, Bootstrap, JavaScript (also ES6), JQuery, React.js, Redux, LESS, SASS

**Backend Web Technologies:** SOAP and REST API, Node.js, Express, Django, MongoDB

**Tools:** Spark, Hadoop, Weka, Heroku, AWS, Sahi Pro

## Technical Projects

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### Facial Emotion Recognition

Python, Keras, Tensorflow, Jupyter Notebook

- Built a deep convolutional neural network (CNN) to recognize and classify the human emotion in the images from the Kaggle FER 2013 dataset using Tensorflow wrapped in Keras on Google Cloud Platform

### Predicting Song Downloads

Scala, Spark, R, ggplot2

- Efficiently predicted the number of downloads of songs from the Million Songs Dataset by implementing a linear regression model in Spark using Scala and performed data analysis of both raw data and results in R

### Boston Public Schools Transportation Problem

Java, Agglomerative Clustering, Agile

- Effectively utilized a hierarchical clustering algorithm in Java as a member of an Agile team to efficiently assign bell-times of schools in order to minimize the number of buses servicing the schools

### Mining Yelp Reviews

Python, Spark, Jupyter Notebook

- Devised a new system of user specific ratings for restaurants by analyzing the latent criteria of reviews from the Yelp Dataset by implementing Latent Dirichlet Allocation in Python and Spark

### Sentiment Analysis of Tweets

Python, Scikit-Learn, NLTK, Tweepy API

- Analyzed the opinion of the public towards a sale conducted by an e-commerce website in India for 5 days by collecting live tweets and developing a model to determine the polarity of the tweets using machine learning and natural language strategies in Python, Scikit, and MySQL {Link - IEEE Research Paper}

## Extra Projects

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**The Good Reader Bot**, a Facebook chatbot integrated with the Goodreads API to get information about books

**Document Classifier**, a Python Flask app deployed on Heroku to classify documents using Random Forest Classifier

**Pig Latin Translator**, an English to Pig Latin translator deployed via Heroku using Python and Flask

**Top Number**, a visually appealing numbers game built in React.js

**IRC-Chatroom**, a clone of IRC chatroom implemented using Node.js, Sockets.io and Express

**Typing.js**, a micro-plugin coded in JavaScript to emulate typing animation effect in a browser

**Word-A-Diction**, an Android application to help improve the vocabulary of the users using AndroidStudio