vijen1991@gmail.com

#### VIJENDRA RANA

https://github.com/vijendra-rana/ Software Engineer with passion for Machine Learning and Data Science.

## **TECHNICAL SKILLS (Languages and Tools)**

- Python, R, C, C++, Java, MATLAB, TensorFlow, PYTORCH, Scikit-learn, Keras, SQL
- Apache Spark, MLlib, Hadoop, Jupyter Notebook, Spacy, NLTK, Git, Google App Engine, SAP

#### **PROJECTS**

#### General Chatbot Framework

July 2017 to Present

- Currently developing a Chatbot Framework using seq2seq encoder-decoder network. (PYTORCH)
- Utilizing 2 recurrent neural networks in conjunction to transform one sequence (Question) into another (Reply).

#### Recommendation engine for MovieLens 20M

July 2017

- Used Collaborative Filtering to predict the unknown ratings and help users in deciding which movie to watch. (APACHE SPARK)
- Utilized Matrix factorization algorithm ALS from MLlib. Got an RMSE score of 0.81.

## Compiler for C language

Mar 2017 to April 2017

- Wrote grammar and supporting code for Declarations, Expressions, function definitions and control constructs for C language. (C, Lex, and Bison)
- Used Lex to tokenize and then bison to create a parser for our written grammar.

## <u>Image Classification with Convolutional Neural network</u>

Mar 2017

- Implemented a model to classify images from the CIFAR-10 dataset (TensorFlow)
- Tried various configurations for Layers and Hyperparameters (Grid Search). Got an accuracy of 67 %.

## San Francisco Crime Classification

Sep 2015 to Dec 2015

- Classified crimes into 39 distinct categories with very few features. (Scikit-learn Python)
- Implementation included feature engineering (creating log based and combinational Derived features) and then applied algorithms like logistic regression, Random Forest, SVM etc.

#### WORK EXPERIENCE

**Duke Tip Trinity University** 

San Antonio, TX

Instructor (Introduction to Programming and Web Development)

- Introduced 32 gifted 8<sup>th</sup> and 9<sup>th</sup> graders to programming (Python)
- Helped students in creating their own websites using Python, HTML, CSS and Google App Engine.

## University of South Carolina

Columbia, SC

Teaching Assistant (Computer Science and Engineering)

Aug 2015 to Dec 2015

June 2016 to July 2016

Worked as a lab monitor for CSCE101 and helped more than 20 students a week with their doubts.

# Accenture (Client Microsoft)

Hyderabad, India

Quality Analyst (SAP Sales and Distribution)

Nov 2013 to July 2015

- Part of Pricing team which is responsible for strategic decisions about various Offers and their prices.
- · Responsibility includes creation of test plans, its execution, collaborating with different teams and towards the end of release participating in go/no go discussions.

## Defense Electronics Application Laboratory

Dehradun, India

Intern (Communication Network Division)

June 2012 to July 2012

 Delivered a solution in C, which was used to synchronize the time of System (on LINUX platform RHEL) with the time received by CW46 GPS kit (based on Latitudes and longitudes).

#### **EDUCATION**

• University of South Carolina - Computer Science, ME

Columbia, SC | May 2017

Graphic Era University -Electronics and Communication, BTech

Dehradun, India | June 2013

## **VOLUNTEER ACTIVITIES**

- Thinking Globally Ambassador at USC, Here I have presented Indian Culture to more than 150 people.
- Taught life lessons and English in Devnar School for the blind as a part of CSR activity at Accenture.