Mihir N. Parikh

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Objective

"To be associated with a progressive organization that gives me scope to apply my education & professional skills and provides me with advancement opportunity & growth empowerment."

Technical Skill

- o **Programming Languages**: Python (*Proficient*), C++ (*Proficient*), Java (*Proficient*), Batch/Bash (*Proficient*)
- **Web Development**: HTML (*Proficient*), JS (*Proficient*), CSS (*Prior experience*), PHP (*Prior experience*), Spring Boot (*Prior experience*)
- o **Application development**: Android (*Prior experience*)
- Python Skills: Scraping (Proficient), Web automation (Prior experience), Flask framework (Proficient)
- o **Other skills**: Linux (*Proficient*), Cloud services like Google Cloud Platform, Amazon Web Services and Microsoft Azure (*Prior experience*), Information Security (*Novice*)

Academic Qualification

- B.E. | in 2018 from LD College of Engineering (Information Tech.) with CGPA of 7.93
 HSC | in 2014 from CBSE by securing 90.2%
- SSC | in 2012 from CBSE by securing 9.2 CGPA

Experience

June 2016 - Sept 2016 (3 months)

Reverse Engineer at **F(x) Data Labs** [Internship in a Start-Up]

Examined the source code of MySQL. Reverse engineered the architecture and flow that drives the sql queries. Documented the discovered flow. Learned to work in startup environment.

June 2017 - July 2017 (2 months)

Java/ML Trainee at **CIGNEX Datamatics Technologies** [Internship in a MNC]

Learned to implement machine learning for classifying documents of a Law firm. Made Spring Boot web interface that closely couples with Python's RESTful API of document classifier. Worked on live website migration [Static to Liferay] project.

o January 2018 - Present

BigData/ML Trainee at **CIGNEX Datamatics Technologies** [Employee in a MNC]

Continued working with Cignex and implemented machine learning for multiple PoCs under Natural Language Processing, Prediction and Classification like domains and demo with multiple clients famous in their industries.

Projects

Home automation using Arduino
 (An android app to control home appliances via Arduino, made in a 2-day Hackathon)

o **Chat bot** for WhatsApp

(A simple command following bot that calls multiple APIs to serve users: Movie and Game reviews, lets user play text based games)

o GCM **Push Notifications** web-app

(A flask based web app that allows admins to push Notifications to subscribed client devices via Google Cloud Messaging)

o **Steganography** with Alternate data stream

(A utility to hide multiple secret files behind a single target file's data stream)

Open directories to Filesystem in Userspace (http mirror)
 (Simulates OS's file system and displays online contents as files without actually storing them)

o **Object Recognition** in Images

(A web-app that identifies objects inside a live camera stream, static image or videos. Also provides an API that returns objects' location in the uploaded image.)

Most of the projects can be referred at github/gist handle: 'smartm13'

Achievements

- Event hosting and management in GTU central techfest and Lakhsya college festival
- Represented LDCE in the CII Conclave 2016 for our project 'Light Traffic System'
- o Won various online and offline competitive coding events with podium finishes.
- o Selected for ACM-ICPC Regionals 2017, participated in Onsite contest at Kolkata.
- o Participated in and supported various activities under IEEE student branch

Extra-Curricular Activities

- o Conducted workshop for Google's CS with Android
- o Campus ambassador for IIM-Udaipur's Cultural Festival

Personal Detail

Address : EB-3, Sterling Park Society, Nr Sterling Hosp, Gurukul, Ahmedabad-52

o Date of Birth : 27-Jan-1997.

Language Known: English, Hindi and Gujarati.

Interest : Coding everyday problems, Learning Business, Playing Chess.

Declaration

I hereby declare that the information mentioned above is true to the best of my knowledge.

Mihir Parikh (Ahmedabad)

Projects in AI/ML

Author- Mihir N Parikh

News In-shorts Topic modeling

<u>Description:</u> It tries to create clusters of 60-word news data extracted from New-InShorts app. It will categorize news to several topics based on their content and then label those topics too.

Underlying ML concept: TF-IDF + NMF

Status: Completed, with acceptable accuracy on provided data

Purpose: Academic project

Object recognition in Images

<u>Description:</u> It was an implementation of mobilenet model to develop an end-to-end tool that can recognize known objects inside images/videos/live feeds and label them. Uses COCO dataset.

<u>Underlying ML concept:</u> Custom CNN on tensorflow

Status: Completed, with good accuracy on real-world data

Purpose: Academic Project

Document Classifier

<u>Description:</u> It will train a model that is able to classify documents in predefined categories.

<u>Underlying ML concept:</u> TF-IDF + SVM

Status: Completed+Demoable, with 90+ accuracy on provided data

Purpose: PoC for a client famous in Legal industry

Document Clustering

<u>Description:</u> It will train a model that can create clusters of documents in categories. The number of categories is chosen automatically from the data such that it is best classified in each cluster.

<u>Underlying ML concept:</u> Apache Tika <u>Status:</u> Completed with Demoable UI

Purpose: PoC for client famous in Housing/Mortgage sector sponsored by US govt

Student In-take prediction for university

<u>Description:</u> It was a SageMaker based use case where data from redshift was used to predict the number of students that would be admitted in different intake seasons and several prediction graphs were plotted on quicksight portal. It will also predict the number of failing students.

Underlying ML concept: Time Series Analysis

Status: Completed and being used, with acceptable accuracy on provided data

Purpose: PoC for a famous University for Nursing in US

Question Suggestion System

<u>Description:</u> It was designed for forum type sites where the system will try to suggest similar questions that were already answered on the site earlier before the user posts his redundant question. Aka- Recommendation system for Questions

<u>Underlying ML concept:</u> NLP + TF-IDF,Word2Vec + Euclidean Distance

Status: Left in the preliminary stage, was performing well on small sized data.

<u>Purpose:</u> Ideas for Liferay symposium demo

Sentiment analysis + Aspect extraction

<u>Description:</u> Training a model that analyzed reviews/comments of users and tagged the sentiments present on the overall comment as well as sentiments on parts of comments that rate the different aspects of domain-specific items.

<u>Underlying ML concept:</u> Word2Vec + TF-IDF + DL

Status: Left in the preliminary stage, was performing satisfactorily on sample data.

<u>Purpose:</u> Ideas for Liferay symposium demo

Stock Market Price Prediction

<u>Description:</u> It tries to train a model that will predict the open price for some stock for a given day based on historical data.

Underlying ML concept: Deep Learning

Status: Completed, with satisfactory accuracy on provided data

Purpose: Hobby

Voice ChatBot for any Sales team

<u>Description:</u> End-to-end chatbot which can be interacted via text and voice. Entertains questions seeking sales figure for a particular company in a particular year out of a live database.

<u>Underlying ML concept:</u> Custom DL based NER

Status: Completed and Demoable, with good accuracy on normally asked questions

Purpose: PoC for multiple clients famous in finance, consumer products industries

Recommendation system for articles

<u>Description</u>: It will generate recommendations (of related articles) for site users based on their previous interactions within the website. For now, article viewing is considered an interaction. *Underlying ML concept*: Collaborative filtering

Status: Completed and Demoable on LifeRay, with good accuracy on generate data

<u>Purpose:</u> Demo at Liferay symposium

House Price Prediction

<u>Description</u>: A use-case to portray our sagemaker capabilities which focused on predicting the prices at which the house may be sold based on various parameters of that house.

Underlying ML concept: XgBoost

Status: Completed, with acceptable accuracy on kaggle dataset

Purpose: PoC for a client in Indian govt banking sector

Speech API

<u>Description</u>: A REST API for doing machine translation tasks on human-like voice. It is capable of doing Speech-to-text as well as Text-to-speech for common English accent voices. It leverages Mozilla's DeepSpeech, TTS and pre-trained models available in the community.

<u>Underlying concept:</u> Flask + DeepSpeech + TTS + NER

<u>Status</u>: Completed, with acceptable results on American accented voices.

<u>Purpose</u>: Dependency for PoC of Voice-ChatBot

Smart Insights

<u>Description</u>: This is a system that throws textual crux out of organized data that focuses on interesting insights of data, which might be not directly visible from complex dashboards. It has a feedback system to make generated insights more actionable.

<u>Underlying ML concept:</u> NLG + Correlation + Clustering

<u>Status</u>: Completed, with decisive insights being generated on HR dataset

<u>Purpose</u>: PoC for a client famous in administrative solutions industry