KUSHAL PATEL

Personal Data

Date of Birth:	18th June, 1996
Address:	B/403 Sagar Sangeet Heights, Sola, Ahmedabad, Gujarat
Phone:	+91 8401547060
email:	patelkushal96@gmail.com
LinkedIn Id:	https://www.linkedin.com/in/patel-kushal/

Career Objectives

Machine Learning and data science enthusiast with experience of executing data-driven solutions of real world problems. Looking to use my Machine learning and data science knowledge to manage statistical machine learning and data-related solutions.

Education

2017-2019 Master of Technology in Structural Engineering
Indian Institute of Technology, Madras
Gpa: 9.11/10

2013-2017 Bachelor of Engineering in Civil Engineering
Vishwakarma Government Engineering College, Gandhinagar
Gpa: 7.76/10

2013 Intermediate in Science
M.B.Patel Gyanjyot High School, Ahmedabad
Percentage: 74/100

2011 Matriculation
M.B.Patel Gyanjyot High School, Ahmedabad
Percentage: 89.4/100

Work Experience

Aug 2019 - Present | Infinite Civil Solutions PVT. LTD
Senior Engineer
Developed design sheet calculations using VBA and Python
Structure design and co-ordination with other departments

Academic Experience

July 2019 | Machine Learning - Introduction
Udacity Nanodegree Program

May 2020 | Deep Learning
Udacity Nanodegree Program

July 2020 | Data scietist
Udacity Nanodegree Program

PROJECTS

Finding Donors for CharityML

Trained a model that accurately predicts whether an individual makes more than $50,000. This sort of task can arise in a non-profit setting, where organizations survive on donations.

Prepared the data to use it for modelling which includes transforming Skewed Continuous Features, Normalizing numerical features, separating features from target labels, adding dummy variables for computation of predictive models and many other data pre-processing steps.

Trained various supervised learning models on the data and compared each of the model performance using different techniques.

Image Classifier Project

Trained an image classifier to recognize different species of flowers using deep learning.

Used a pre-trained network to reduce the training time.

Applied image pre-processing to reduce the noise and to improve an image data features.

Used train model for predictions.

Identify Customer Segments

The main aim is to identify facets of the population that are most likely to be purchasers of their products.

Converted the data into usable form by applying data analysis and data cleaning.

Applied dimensionality reduction techniques to identify relationships between variables in the dataset which result in the creation of a new set of variables that account for those correlations.

Adopted an unsupervised learning techniques to organize the general population into clusters.

Used those clusters to see which of them comprise the main user base for the company.

Predicting Bike-Sharing Patterns

Trained a multi-layer neural network to predict the number of bike-share users on a given day.

Prepared data for modelling by scaling numerical features, one hot encoding of categorical features.

Tuned Hyper-parameters such as number of iterations, learning rate, hidden nodes in such a way that training loss and validation loss are less than 0.09 and 0.18 respectively.

Showed a good result in predicting daily bike rentals on normal days, but not so good on special days due to less yearly data in training set.

Dog Breed Classifier

Trained an image classifier using pre-trained resnet50 architecture to classify dog breed with an accuracy of 89 %

Applied image pre-processing to reduce noise and improve image data features.

Generate TV Scripts

Trained an RNN model with LSTM on Seinfeld TV scripts to generate fake TV scripts.

Tokenized punctuations and created dictionaries from word to index and index to word.

Created Embedding layer, LSTM layer and Linear layer sequentially to predict the most probable next word.

Generate Faces

Trained a Deep Convolutional Generative Adversarial Network (DCGAN) model on a dataset of faces to generate new images of fake human faces that look as realistic as possible.

Because of biased samples, generated images are lighter in shade, even the brown faces are bit lighter and Samples with sunglasses lead to some strange effects in the generated image.

Courses and Certificates

NPTEL	Data Science for Engineers
NPTEL	Machine Learning for Engineering and Science Applications
Coursera	Programming for Everybody (Getting Started with Python)
Coursera	Python Data Structures
Coursera	Python for Data Science, AI and Development
Coursera	Data Analysis with Python
Coursera	Neural Networks and Deep Learning
Coursera	Improving Deep Neural Networks
Coursera	Convolutional Neural Networks
Coursera	Sequence Models

Achievements

April 2019	Honoured with gold-medal in Data Science for Engineers NPTEL course
April 2017	Runner up in "OPEN HOUSE'17" (A State Level Project Competition) held at VGEC, Ahmedabad, Gujarat
Feb 2017	Runner up in "QUISTRUC'17" (A State Level Quiz Competition) held at CHARUSAT, Changa, Gujarat

Computer Skills

Language:	C, Python, sql
Software:	matlab
Libraries:	Numpy, Pandas, Scikit-Learn, Matplotlib, seaborn, PyTorch

Languages

English:	Full professional proficiency
Gujarati:	Native or bilingual proficiency
Hindi:	Native or bilingual proficiency

Interests and Activities

Listening Music, Watching Cricket