# ANUP PATEL

## EDUCATION

Master of Technology in Computer Science
**Indian Institute of Science** *2018 - Present*
Advisor: Prof. Gopinath

Bachelor of Engineering in CSE
**Vivekananda Global University** *2013 - 2017*
CGPA: 9.73/10

Higher Secondary
**Tulsi Vidya Niketan** *2012*
Percentage: 78.4

Secondary
**Varanasi Public School** *2010*
CGPA: 9.6/10

## PROJECTS

**Community Detection in a Network** Oct 2019
*IISc Course Assignment : Data Analytics*

Use the Fiedler-vector and Louvain method to identify the two communities in a bottlenose-dolphins network. More Details can be found here: $https://github.com/anup-patel/CommunityDetector$

**Prime Acquisition** July 2019
*Airtel X Labs*
*Advisor: Mr. Alok Mathur (Senior Data Scientist Airtel X Labs)*

To predict whether a user will claim Prime membership in future or not.

**ARPU Upgrade** May-June 2019
*Airtel X Labs*
*Advisor: Mr. Alok Mathur (Senior Data Scientist Airtel X Labs)*

To Predict whether a user will increase ARPU or not, based on its previous month usage. Result can be further used to analyse whether a user is happy with Airtel services or not.

**Adversarially Regularized Graph Auto-Encoder for Graph Embedding** Feb-April 2019
*Machine Learning Course Project*
*Advisor: Prof. Ambedkar Dukkipati*

Graph Embedding is an effective method to represent graph data in a low dimensional space for graph analytics. This Framework encodes the topological structure and node content in a graph to a compact

representation, on which decoder is trained to reconstruct the graph structure. Furthermore, the latent representation is enforced to match a prior distribution via an adversarial training scheme

**Prediction of Mars' Orbital Plane** Sept 2019
*IISc Course Assignment : Data Analytics*

Use mars opposition data (data collected by Tyco Brahe and used by Kepler) to find the projection of Mars position on the ecliptic plane and the distance of this projection to the centre. Find the best fit circle of mars orbit (assuming it lies in ecliptic plane) using the triangulation dataset.
Second part of it was to, using opposition and the geocentric latitudes of Mars, find the corresponding heliocentric latitudes of Mars. This is done as a course assignment in Data Analytics.

**Cricket Score Prediction using Duckworth-Lewis Method** Aug 2019
*IISc Course Assignment : Data Analytics*

The task is to find the best fit run production functions in terms of wickets-in-hand(w) and overs-to-go(u). The given data file contains data on ODI matches from 1999 to 2011. The model assumed is as follows: Z(u,w)=Z0(w) (1exp(-Lu/Z0(w)). To solve this problem I have used linear regression method to minimise the loss function of the actual score and predicted score. This is done as part of course assignment in Data Analytics.

**Reconstruction and Classification of MNIST Dataset by K-NN Classifier** Sept 2018
*IISc Course Assignment*
*Advisor: Prof. M. Narasimha Murty*

MNIST is a handwritten dataset, originally has 60,000 digits with 784 (28x28) dimensions in its training set. In this assignment, a subset of MNIST dataset has been taken into account for reconstruction task using truncated SVD for different values of d and Reconstruction Error (RMSE) is calculated.

**Unsupervised Learning Task of Clustering** Oct 2018
*IISc Course Assignment*
*Advisor: Prof. M. Narasimha Murty*

Design and implement an unsupervised learning task of clustering similar data points using k-means and spectral clustering algorithms. This project deals with eigenvalues, eigenvectors and one of their numerous applications, namely clustering. K-means and Spectral Clustering have been applied to two different datasets and observed the differences.

## INTERNSHIPS

**Airtel X Labs, Bangalore** *May 2019 - July 2019*
Data Science Profile

**GirnarSoft, Jaipur** *Jan 2017- July 2017*
Technology: PHP

## COURSES

Machine Learning, Practical Data Science, Data Analytics, Deep Learning, Computational Methods of Optimization, Linear Algebra and Probability, System Security, Cryptography, Design and Analysis of Algorithm, Distributed Computing System.

## COMPUTER SKILLS

**Basic Knowledge:** Tensorflow, Pyspark, Pytorch, Keras, C, C++
**Intermediate Knowledge:** Python, HTML, CSS, Web Designing

## ACHIEVEMENTS

- Secured All India Rank 2 in ISRO SC Written Test (CSE) Dec 2017.
- AIR 142 GATE CS 2018
- Gold Medalist in B.tech (2013-2017)
- Academic Outstanding Excellence Award (2014-2015).
- Secured 2nd Rank in Varanasi in NSTSE Exam.
- Secured 1st Rank in Poster competition in National Conference on Recent trends of Transistor.
- Secured 3rd rank in MTEA (Mathematical Technique in Engineering Applications).
- Completed Live Project based Training on Industrial Robotics (Vertex Group) in 2015

## INTERESTS AND ACTIVITIES

Technology, Machine Learning, Programming
Fiction, Travelling
Cricket, Badminton, Football

## VOLUNTEER EXPERIENCE

- Placement Coordinator for IISc CSA (Session 2019-2020).
- Web Team member at IISc Bangalore.
- Event Coordinator at CSA Open Day 2019, IISc Bangalore.
- Volunteer at CSA Summer School 2019, IISc Bangalore.

## PERSONAL DATA

**Place and Date of Birth:** Uttar Pradesh, India — 28 Mar 1995
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