SHANTANU PATIL

📍 Room no.- 142, Diamond Hostel, IIT (ISM), Dhanbad - 826004, INDIA

📱 (+91) 7004184727 · ✉ shantanupatil1899@yahoo.com

🔗 linkedin.com/in/patil-shantanu · ⭕ github.com/REDFOX1899

EDUCATION

- **Indian Institute of Technology (ISM) Dhanbad**   Dhanbad, INDIA
  Integrated M. Tech. in Mathematics & Computing; CGPA: 7.92/10.0 (after 6 semesters)   July 2015 – May 2020

- **Higher Secondary, Adarsh Gyan Mandir**   Kota, INDIA
  Science stream, RBSE; 82.80%   2013 – 2015

- **Secondary, Ashoka Universal School**   Nashik, INDIA
  ICSE; CGPA: 93.37%   2012 – 2013

PROJECTS

- **Chatbot** [†]
  Natural Language Processing - NumPy, Tensorflow, Keras
  - The Chatbot is implemented using a Seq2Seq model which is made up of 2 Recurrent Neural Networks (RNNs) namely the Encoder Recurrent Neural Network and the Decoder Recurrent Neural Network. The cell used in the RNN is LSTM (Long Short Term Memory).
  - The Seq2Seq model is given a question in embedded form and its job is to correctly answer the question given as input. It uses the dataset of Cornell Movie Corpus data for training as well as testing where conversations are given in question and answer format. This dataset can be trained using the Seq2Seq model.

- **Google Stock Price Prediction** [†]
  Deep Learning - Python (NumPy, Pandas, Scikit-Learn, Tensorflow, Keras)
  - Used RNNs to predict the trend of Google Stock Price by using the data provided by Yahoo Finance.
  - Used the data from the last 60 days to train LSTM's using Keras, TensorFlow

- **Detecting Fraud in Australian Credit Approval**[†]
  Self Organizing Maps - MiniSom 1.0 package in Python
  - Implemented Self Organizing Maps to detect fraud on data set from statlog (Australian Credit Approval) Data Set from UCI
  - Self Organizing Maps reduced the High Dimensionality of the Data and classified suspected fraud

- **Predicting the sentiment of a Hotel Review**[†]
  Natural Language Processing - NLTK, Pandas, re, Numpy, sklearn
  - Using the NLTK library made a Bags of Word model and trained the data on a Gaussian Naive Bayes Classifier
  - Got accuracy of 0.73 on the test data set

- **Optimizing the Sale of Products in Supermarket** [†]
  Association Rule Learning - Python, Statistics, Probability Theory
  - Used Apriori Machine Learning model to optimize the sale of a store in south France by finding the association between items and then placing them accordingly.
  - Understood the Formulas of Support, Lift and Confidence to better implement the Apriori Model

- **Identifying the Pet**[†]   Fall, 2017
  Deep Learning - CNN, Keras, Tensorflow
  - Used CNN [Convolution - ReLu Layer - Pooling - Flattening- Full Connection] to predict if the image is a Cat or a Dog.

WORKSHOP

High Performance Computing Workshop, IIT BOMBAY   Dec. 2016

- Learned about the Parallel Architecture of GPU specifically Nvidia Gpu's.

- Followed by Hands on Session on CUDA Programming

Certifications

- **Machine Learning**, Udemy (by Kirill Eremenko, Hadelin de Ponteves, SuperDataScience Team)·
- **Deep Learning**, Udemy (by Kirill Eremenko, Hadelin de Ponteves, SuperDataScience Team)·

Technical Skills

Programming Languages	C/C++, Python
Machine Learning	Numpy, Pandas, Scipy, Scikit-learn
Deep Learning	Tensorflow, Keras, NLTK
Visualization	Matplotlib, Seaborn
Parallel Computing	CUDA
Databases	SQLite, MySQL
Platforms	Linux, Windows
Software Skills	git, LaTeX, Jupyter Notebook, Anaconda

Coursework

Object Oriented Programming, Data Structures, Operating Systems, Database Management Systems, Computer Networks, Design & Analysis of Algorithms, Probability & Statistics, Inferential Statistics, Sampling Theory, Numerical Methods

Positions of Responsibility

- **Organizer of Ventura Hunt, Concetto - 2016**   Dec. 2015 — Present

  - Organized and Coordinated Ventura Hunt a Tech Fest Event which attracted around five Hundread participants .
  - Headed the Sponsorship Team

- **Member of Society for Industrial and Applied Mathematics (SIAM)**   Dec. 2015 — Present

Extracurriculars

- Attended conference on **Financial Markets by Twenty19** conducted during the annual Techno-Management fest–Concetto of IIT (ISM) Dhanbad in 2016.
- Secured **1st Prize for Building Innovative Design Model for Hydraulic Arm** in a competition organized by Applied Chemistry Department, IIT(ISM) Dhanbad in 2015.
- Qualified for the Second level in **Dr Homi Bahaba Balvaidnyanik Exam** in 2012