

Praxal Patel

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EDUCATION

Center for Data Science, New York University (GPA: 3.9/4.0)

New York, NY

Master of Science in Data Science

Aug 2019 – May 2021

Relevant Coursework: Probability and Statistics, Introduction to Data Science, Programming for Data Science, Natural Language Understanding, Machine Learning, Big Data, Deep Learning, Probabilistic Time Series Analysis, Natural Language Processing

Institute of Technology, Nirma University

India

Bachelors of Technology in Computer Engineering

Aug 2015 – May 2019

SKILLS

Tools & Technologies: Tensorflow, Scikit-Learn, Keras, PyTorch, Tableau, Pandas, Matplotlib, OracleDB, MS Excel

Programming Languages: Python, Java, SQL, C++, R, Hadoop, Spark

EXPERIENCE

Data Analyst, Wellness Space

India

Center to put together and share various aspects of spiritual, emotional, mental and physical wellness

Jan 2019 – May 2019

- Engaged in analyzing Heart Rate Variability through 24-hours ECG signal data using SVM and LSTM models to predict a person's state of emotional arousal and analyzed key parameters associated with mental stress.
- Involved in deploying a self-monitoring application using ECG data to help clients monitor their stress levels and understand the effect of various activities on their heart rate; Performed anomaly detection on the ECG data for artefact correction.

Research Scholar, Iowa State University

Ames, IA

Advisor: Professor Goce Trajcevski

May 2018 – Jul 2018

- Used Check-ins from various Location Based Social Networks, to link given trajectories to their corresponding users, using LSTM, GRU and Bi-Directional LSTM and compared the results on Gowalla and Brightkite Dataset
- Assisted for the research on Location-Awareness in Time Series Compression.
- Developed a Streambase application to aid decision-making for real-world problems in the field of finance
- Worked with Hadoop and Apache Spark to conduct research in Big Data

ACADEMIC PROJECTS AND RESEARCH

Job Recommendation Engine

Oct 2019 – Dec 2019

- Web-scraped job postings for "Data Scientist" jobs and relevant resumes of candidates from New York City.
- Used Natural Language Toolkit for extracting keywords about pertinent skills from job descriptions and resumes.
- Developed a Recommendation Engine using Cosine Similarity and utilized Hit Ratio for evaluating the performance of the system.

Prediction of Emergency Station Locations Using Deep Learning and Machine Learning Techniques

Jul 2018 – Jan 2019

- Identified detection parameters like population density, traffic, navigation, frequency of ambulance call, etc.
- Researched various Deep Learning Models to see which one suited best for Travel Time Prediction and predicted the travel time between every two given points in NYC by training a XGBoost model using NYC Taxi Trip Dataset
- Incorporated an algorithm driven by K-Medoids and used travel time instead of distance to predict new locations of the Emergency stations; web-scraped the coordinates and labelled them as belonging to land or water.
- Co-authored a paper titled 'Optimal Location Prediction for Emergency Stations using K-Medoids driven by XGBoost' submitted at KDD 2020 under the category "Applied Data Science Papers".

Diabetic Retinopathy Detection Using Deep Learning

Jan 2018 – Jun 2018

- Researched different types and stages of diabetes and consulted ophthalmologists regarding diagnostic techniques
- Identified Hard Exudates, Soft Exudates, Microaneurysm and Haemorrhages as the key factors for detection using CNN models and used the Ensemble Method to ascertain the stage of Retinopathy and significantly reduce the False Negatives
- Performed Data Augmentation and Image Segmentation using Attention UNet; Conducted experiments for the purpose of generalization, using the datasets Messidor (1200 images), DiaretDB0(130 images) and DiaretDB1(84 images)

POSITION OF RESPONSIBILITY

Graduate Researcher under Prof. Zhan Guo - Analyzed how Lyft is responsible for reduction in cases for DUI

Jan 2020 – May 2020

Junior Data Scientist at NYU CDS under Prof. Alec Marantz - Developed automated neural data analysis

Jun 2020 – Aug 2020

for classifying neuro-typical and atypical population

Research Assistant at NYUAD - Understanding Indonesia's scorched earth policy using news and satellite data

Jun 2020 – Present

Teaching Fellow for Data Science Bootcamp at NYU STERN under Prof. Benjamin Zweig

Sep 2020 – Dec 2020

CURRENT PROJECTS

- SentenceBERT_score: Devised a novel metric using embeddings from SentenceBERT for evaluation of Summarization Tasks.
- Book Recommendation System using Big Data Tools
- An Exploratory Analysis of India's Foreign Trade - "Best Data Visualization" 2020 CDS Academy Award.