# Parth Dilip Maniar

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## EDUCATION

- **University at Buffalo, The State University of New York** — Buffalo, NY
  *Master of Science in Data Science* — *Aug. 2021 – Present*

- **University of Mumbai, K.J. Somaiya Institute of Engineering and IT** — Mumbai, India
  *Bachelor of Engineering in Information Technology* — *July 2017 – May 2021*

## RELEVANT COURSES

Statistics, Data Analytics, Machine Learning, Predictive Analytics, Prescriptive Analytics, Business Analytics with R, Natural Language Processing NLP, Programming for Data Science, Big Data Business Database warehousing, Quantification (Science), Data Modelling, Deep Learning, Reinforcement Learning

## SKILLS

- **Technical**: Python (NumPy, pandas, scikit-learn, matplotlib), R(dplyr, datatable,ggplot, tidyverse), MATLAB, SQL, MongoDB, ElasticSearch, Tableau, Power BI, ETL, AWS, Google Analytics, Advanced Excel , TensorFlow, Pytorch, Data Mining, Data Wrangling, Clustering, Statistical Modeling, Quantitative Analysis, A/B Testing, Spark, Hive, Hadoop, Sqoop, Git, GCP, Heroku, FastAI, OpenCV, Docker, HTML, CSS, Java, Javascript, SQLAlchemy

## EXPERIENCE

- **Tata Power** — Mumbai, India
  *Research and Development Intern* — *Jan. 2020 - Jul. 2021*
  - Achieved a loss reduction of 25% by applying models such as Boosted Trees, Gated Recurrent Units Networks, Long Short-Term Memory Networks, and Artificial Neural Networks with 3 million data points to estimate load for future days.
  - Obtained an accuracy of 94% by evaluated trends in load during different seasons of city resulting in optimized algorithms for reduction in MAE.

- **India Meteorological Department** — Mumbai, India
  *Artificial Intelligence Intern* — *Jan. 2020 - Jul. 2021*
  - Led a team of 4 and engineered a system to deliver weather forecast for following day, divided into 96 blocks, each having 15-minute time span.
  - Predicted relative humidity & temperature obtaining accuracy of 92% by developing machine learning solutions utilizing Random Forest Regressor comprising 512 decision trees with maximum depth of 96 nodes, KNNRegressor.

- **Enrich Digital Technosolutions** — Bangalore, India
  *Project Engineer Lead* — *Apr 2020 - Apr 2020*
  - Planned and designed a system to provide a comprehensive platform for controlling whole corona cycle of afflicted citizens, including tracking quarantine duration, recovery stage, and medical help, utilizing geofencing and face recognition, along with 128d embedding using dlib.
  - Collaborated with designers and engineers to ensure application was available for customer use within 15 days of timespan.

- **NxtGen Infinite Datacenter** — Mumbai, India
  *Project Engineering Intern* — *Jun 2018 - July 2018*
  - Created a web-based application called "Multiverse" with features like "Unique ID Generation," "Face Authentication," and "Liveness Detection" utilizing JavaScript API for facial recognition, "Eye Aspect Ratio (EAR), and "Keycloak" for corporate employee access control.

## RELEVANT PROJECTS

- **Unified System for Agriculture Prediction using AI — Deep Learning, App Dev, Backend**
  - Achieved 1st Prize in National Smart India Hackathon 2020 in alliance with Cognizant Co.
  - Predicted season-wise crop yield for 55+ variety of crops for 343 districts with  95.67that applies Artificial Intelligence (AI) to using AdaBoostRegressor, GradientBoostingRegressor, BaggingRegressor, SVR.

- **SpotGarbage — Computer Vision, Deep Learning**
  - Innovated an application to assist residents in classifying garbage based on material and nature (biodegradable & non-biodegradable) by collecting and labeling a self-built dataset and implementing computer vision and implemented YOLOv2, SSD, and FASTER- RCNN models with accuracy of  87%

- **Enhancing Sanitation by Capacity Planning of Toilet — Machine Learning — Web Dev, Backend**
  - Prepared a system to intelligently plan placement of toilets by estimating ratio of population per unit area by applying Contour Detection on satellite images with OpenCV and building categorization. System is real time and primarily for use by government personnel.

- **Lecture Notes Classification — Deep Learning, Web Dev, Backend**
  - Created a system which categorize the images as "notes" or "not notes" by creating a deep learning model.