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EDUCATION

YEAR	DEGREE/EXAMINATION	BOARD/UNIVERSITY	CGPA (%)	RANK
2014	M. Sc. Mathematics	Indian Institute of Technology, Bombay	9.29/10	SECOND
2012	B. Sc. Mathematics	Hindu College, Delhi University	88%	FIRST
2009	All India Senior School Certificate Examination, CBSE	St. Anthony Girls Sr. Sec. School, Delhi	87%	FIRST
2007	All India Secondary School Examination, CBSE	Ramjas Girls Sr. Sec. School, Delhi	83%	SECOND

EMPLOYMENT

Data Scientist - I	**UnitedHealth Group**	**Sep 2018 – Present**

- Leading a team of 3 members, to **establish an analytics team for E&I members**.
- Leading an initiative **PINE**, to identify **short term triggers/events** occurring in members' life impacting their journey on a real time basis.
- Identified **actionable drivers for lapsed members** leveraging **Supervised Clustering** and **forward logistic regression.**
- Predicted the **likelihood of a member to pick up a call in DHN program** using **Gradient Boosting method,** selected for **US Patent.**

Data Scientist	**UnitedHealth Group**	**Sep 2017 – Aug 2018**

- Predicted Provider's rating based on the "member's satisfaction with provider" questions from CAHPS Survey to take stringent actions against Provider with low rating using **Hierarchical Bayesian Modeling** and **Confirmatory Factor Analysis**.
- Segmented the Disabled members based on their Physical and Behavioural need to effectively target the member based on their medical state and existing medical condition using **Confirmatory Factor Analysis.**
- Identified the need of a member to visit a Cardiologist using past year **Laboratory results of Cardiac problems**. Also compared it with actual Cardiologist visits to understand the difficulties faced by a member in visiting to the specialist.

Lead Business Analyst	**UnitedHealth Group**	**Apr 2017 – Aug 2017**

- **Promoted** to a managing role in 6 months duration.
- Predicted the **likelihood of a member to have mobility impairment** in future using **logistic regression, Random Forest and PCA.** Identified their pain points and developed strategies to improve their member experience.
- Identified member's hassles points and transform their journey while they are undergoing **Chemotherapy.**
- Developed a tool for **IncrementalML** to reduce unnecessary rescoring and validation of model. Also to capture the trend of latest data.

Senior Business Analyst	**UnitedHealth Group**	**Apr 2016 – Mar 2017**

- Selected from a team of **50** to travel to **UHG Head Office in US** and train a team of 12 on Big Data Environment & PySpark.
- **Improved** the methodology to define the members' level of email engagement by including their interaction data from previous years. Also used **Empirical Bayesian Model** to predict the likelihood of a member opening an email in future
- Identified an optimized path to target members for Breast Cancer Screening campaign to increase their engagement and to reduce unproductive communications using **Decision Trees and Markov Model in PySpark**
- Performed a clustering exercise to understand the inbound callers and optimize their contact strategy on the basis of member level clusters using **Big Data and PySpark**
- Recommended the best plan mixture to be offered to a prospect based on the prospect's similarity of attributes with members having the similar plan using **Big Data and PySpark**
- Performed deep dive analysis on CAHPS Survey to improve the accuracy of 9 CAHPS Measures:
    - Built 9 predictive multiclass models to identify low score responders using **Xgboost, Support Vector Machine, Neural Network**
    - To understand the extent at which different measures move together or differently

Business Analyst	**UnitedHealth Group**	**Jul 2015 – Mar 2016**

- Developed an **Uplift Model**, composed of Test and Control Models which identifies the impact of inbound call campaign on completion of a screening available with the member post 120 days of the campaign using **Naïve Bayes Classifier Algorithm**
- Predicted the likelihood of a member to get re-admission post 30 days of discharge using **Random Forest**
- Developed a predictive model which identifies the likelihood of a member to lapse at EOY using **Logistic Regression**
- Built a **Tableau dashboard** to compare the weekly churn and retention rate of members of 2 consecutive years
- Measured Marketing Campaign's effectiveness using **Test vs. Control** and Clustering approach
- Built predictive model to identify the key drivers of **NPS** using **Generalized Linear Model**
- Identified the key problems that would lead a member to be a **Detractor (lowest score in NPS)** using **Topic Modeling (Text Mining)**
- **Automated** the modeling process and improved the accuracy by incorporating **Ensemble Modeling** techniques

Achievements:

- Awarded **Go to the Extra Mile Award**, **1 in a team of 60**, for initiating a new initiative **AES PINE.**
- **First and only person** in the team to receive a **Bravo Award** from the client for value creation in an **on-site project**.
- Won a **Datahack ML competition** (1st place among 6 teams) organized by Optum to predict the service outage of an application
- Awarded **STAR Performer Award**, **1 in a team of 326**, for delivering the **Big Data Hassle Free BCS** leveraging Markov Chain Model

- Awarded **Team Excellence Award**, for delivering the leveraging Machine Learning techniques on 3 Big Data projects.
- Awarded **Diamond Award,** 1 in a team of 30, for Collaboration for successfully delivering the CAHPS Analytics project on time.
- Received **Team Spirit & Excellence Award,** 1 in team of 30, for identifying the key issues of a Detractor using Text Mining in Q2'16.
- Received **Venus Star Award,** 1 in team of 30, for successfully delivering Re-admission predictive model project on time in Q1'16.
- Received **Special Thanks & Recognition Award,** 1 in team of 30, within 3 months of joining the organization for building a Member's Retention dashboard

Business Analyst (Financial Crime & Regulatory Compliance)	HSBC	Jul 2014 – July 2015

- Worked with a global mandate that aims to support the Anti-Money Laundering (AML) Operations & Investigations teams for HSBC Correspondent Banking businesses in Hong Kong (HK) and UK
- Developed a risk based prioritization model that optimized the AML investigation process in HSBC HK by reducing non-productive transactions by 62%

TECHNICAL SKILLS

- **Languages**: Python ,R, SQL, C++, VBA (Basic), Unix Scripting
- **Tools & Technologies:** Hive, Hadoop, PySpark, SAS, SPSS (Basic), Knime, MS Office

INTERNSHIPS

MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION, GOVT. OF INDIA (JUL – AUG, 2013)
GUIDE: DR. RATTAN CHAND, CHIEF DIRECTOR (STATISTICS)

- Statistically analyzed the demographic profiles of India using Census 2011 data
- Identified various factors that affect population growth IMR with major focus on Empowered Action Group (EAG)

JAYPEE GROUP (MAY – JUL, 2013)
GUIDE: MR. R. P. SHUKLA, ASSISTANT GENERAL MANAGER

- Studied the emergence of Derivatives trading in various sectors of Indian Economy and its application to minimize the risk

BANKING MANAGEMENT SYSTEM USING C++ (NOV 2012)
GUIDE: DR. ABHIRAM RANADE

- Developed a code for solving financial problems of a customer in a banking environment
- Nurtured the needs of an end banking user by developing a code for creating an account, checking balance details etc. to perform banking tasks

ACHIEVEMENTS

- **Ranked 2**nd out of 28 students in the Mathematics Department, IIT Bombay
- Secured **45**th **rank** out of more than 20,000 candidates **in JRF (NET)** conducted by UGC
- Recipient of **Institute Academic Award, IIT Bombay,** awarded to **top 2** rank holders in a department
- Secured **All India Rank 4** out of 10,000 candidates **in Mathematics Joint Admission Test** for M. Sc. conducted by IIT
- Secured **4**th **rank** (overall) and **3**rd **rank** (final year) in **Delhi University** among 800 students
- Secured **1**st **position** in college **in all 3 years** of graduation at Delhi University
- Awarded **Certificate of Merit from International Mathematics Olympiad**

POSITIONS OF RESPONSIBILITY

PLACEMENT COORDINATOR, MATHEMATICS DEPARTMENT, IIT BOMBAY (JUL '13 – JUL '14)

- Co-ordinated recruitment activates for placements in a team of 90
- Acted as a liaison between students of diverse academic interests, companies and placement body
- Responsible for timely dissemination of placement related vital information to the students
- Organized preparatory activities such as lectures, quizzes, Buddy talks, GD/PI sessions and workshops

COORDINATOR, ALPHA 2011 (MATHEMATICS FEST OF HINDU COLLEGE, DELHI UNIVERSITY) (FEB 2013)

- Key member in the event organizing committee
- Successfully organized Mathematical Quizzes and was responsible for setting the questions and conducting the event for 500+ students

EXTRA-CURRICULAR ACTIVITIES

DANCE

- Represented the department in Dance Competition, PG Cult 2013 (Selected for second level) and Sophie Prod 2012, IIT Bombay
- Active member of SRIJYA (dance society of Hindu College) and won many prizes among DU colleges

TEACHING SKILLS

- Experience of **4 years in teaching Science and Mathematics** to around 20 students of secondary and higher secondary classes
- Completed **teacher training course in Vedic Mathematics**

OTHERS

- Delivered a speech at Centre level on '*Biodiversity – Nurture Nature for our future*', organized by Directorate of Education, Govt. of NCT of Delhi
- Represented the school in Science Quiz organized by Ministry of Earth Sciences
- Acted in many **Theatre** performances organized by Talent Group

ONLINE CERTIFICATIONS

BASICS OF PYTHON | NEURAL NETWORKS AND DEEP LEARNING | IMPROVING DEEP NEURAL NETWORKS | RECOMMENDATION ENGINE