

# Nitin Reddy Karolla

New Brunswick, NJ, USA

+1 (848) 218-8682 | [www.linkedin.com/in/reddynitin/](http://www.linkedin.com/in/reddynitin/) | [nitinreddy.k@rutgers.edu](mailto:nitinreddy.k@rutgers.edu)

## Education and Coursework

---

**Rutgers - State University of New Jersey, New Brunswick**  
Master's in Computer Science (Data Science) | GPA: 3.83/4.00

**Expected Graduation - May'2020**

**Birla Institute of Technology, Ranchi**  
B.E. in Civil Engineering | GPA: 7.92/10 (First Class)

**Jul'2010 - Jun' 2014**

## Technical Skills

---

**Programming Languages:** Python, R, SAS, SQL, C, HTML, Hive, Spark

**Tools:** R-Studio, MATLAB, SK-Learn, Pandas, Numpy, NLTK, Tableau, OpenCV, TensorFlow, Keras, MS Office

**Skills/Interests:** Machine Learning, Natural Language Processing, Visualization, Predictive Analytics, Big Data

## Professional Experience

---

### HSBC

**Assistant Manager | Applied and Research Analytics**

**Sep'2017 - Jul'2018**

Project: Contextual Scoring Model

- Developed an ensemble model of Artificial Neural Networks, Gradient Boost, and Random Forest to hibernate alerts (false positives) generated from transaction monitoring systems
- Achieved a 30% reduction in false alerts with risk appetite of 2.5% for the UK and HK region

Project: Facial Recognition for Name Screening

- Suggested and built a demo of Facial Recognition technology in the field of Name Screening for reducing the false positives as an alternative to current methodology
- Delivered hands-on training session for more than 150 employees on 'Python for Data Science' and 'Basics of Natural Language Processing'

### HSBC

**Analyst | Financial Crime Risk – Decision Sciences**

**Dec'2015 - Sep'2017**

Project: Coverage Assessment tool

- Incorporated the manual coverage assessment into R Shiny tool by developing and automating mapping algorithm for red flags (sentences) to scenarios (documents)
- Tool functionalities include interactive dashboards, user inputs storage, and an end to end report generation (R Markdown)
- Reduced the turnaround time for coverage assessment from 96 hours to less than 15 minutes

Project: Red Flag Search Box

- Developed an interactive search tool, using R Shiny, to type in a query and search global list to identify similar red flags (sentences)
- Stop words removal and lemmatization was performed to get cleaned sentences
- Measured similarity using Levenhstein index, Jaccard index, and semantic similarity obtained using TF-IDF and Wordnet

Project: Anomaly Detection

- Conducted intense research and produced a white paper on an anomaly detection technique – Replicator Neural Networks to detect suspicious customer
- Captured 93% of suspicious customers in top 1% based on rank ordering and achieved 23% reduction in false positives

### EXL Service

**Business Analyst | Work for a leading financial client in Asia**

**Sep'2014 - Nov'2015**

Project: Twitter Lead Generation

- Fetched tweets based on keywords using the tweepy to identify high net worth individuals for the bank
- Applied NLP techniques such as N-Grams, Name-Entity extraction, Regular Expressions, Stemming etc.
- Achieved a match rate of 2% with the customer's database

#### Project: Insurance Acquisition Model

- Built a cross-sell acquisition model using Logistic Regression and Neural Networks for an Insurance product
- Performed exploratory data analysis, class imbalance treatment and feature selection/reduction using Information Value, Variable clustering, and LASSO
- Validated the model using k-fold validation technique achieving Gini's Coefficient of 0.54

#### Project: Campaign Analytics

- Designed and tracked performance of various campaigns of the bank across channels like SMS, e-Mails, Direct mails, Telephone, Media, etc.
- Performed A/B testing across campaigns for various metrics like click rate, open rate, response rate, conversion rate etc.

### Awards and Achievements

---

- Among the **top 3** contributors at Data Science Community, HSBC
- Awarded "**DELIVERING THE PROMISE**" for Q1-2018 at HSBC for delivering the Coverage Assessment tool
- Awarded as "**TEAM STAR**" for Q3-2016 at HSBC for the contributions to Coverage Assessment tool
- Awarded as "**STAR PERFORMER**" in Banking Vertical for Q1-2015 at EXL Services
- Awarded as "**RISING STAR**" at EXL Services, Q4-2014 for quick learning and developing the Acquisition model

### Extra-Curricular Activities

---

**Trekking Expedition** –Trekking SAR Pass and other mountains in the Himalayas in the range of 15000 ft.

**Biking** - Completed solo bike ride covering 3000 km in 8 days. Member of Bangalore Bikers group, promoting safe bike riding.

**Social** – Raised over INR 1,00,000 through crowd funding for spreading awareness about Thalassemia in the sub-urban areas of Ranchi [\[7\]](#). Organized JOYFEST-12 at BIT Mesra that involved teaching at schools, visiting Blind schools, Old age homes and performing other socially activities.

**Vice President, Photographic Society, BIT Mesra**– Led a team of 50 members and organized workshops, trainings, photo tours and fest by bringing together all the photography enthusiasts.

**Coordinator, Training and Placement Division, BIT Mesra** – Member of 9 member team that facilitated the campus placements for more than 1000 students by building relationship with corporates, facilitating recruitment and organizing interaction sessions.