RUSHABH PATEL

MACHINE LEARNING & DATA SCIENCE PROFESSIONAL

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SUMMARY

Highly analytical and process-oriented data science professional with 5+ years of experience and in-depth knowledge of database types, statistical research methodologies, and big data capture, curation, manipulation, and visualization. Experience in conducting statistical analyses and predictive analyses on large data sets.

PROFESSIONAL EXPERIENCE

AT&T, New York City, NY
Senior Data Scientist (June 2022 – Present)

- Working together with our industry partner on the cutting edge of the intersection of databases, knowledge graphs, and artificial intelligence.
- Contribute to the development of a product for solving real-world, large-scale problems using knowledge graph technology.
- Design and development of artificial intelligence and machine learning applications built upon the knowledge graph technology.
  Programming languages\Techniques\Tools: Python, REL, Julia, PySpark, Snowflakes.

Children's Hospital of Philadelphia, Philadelphia, PA
Applied Data Scientist II (June 2020 – June 2022)

- Applying natural language processing (NLP/NER) methods to clinical text to extract structured information.
- Applying statistical models to assist researchers in analyzing missing, erroneous or incomplete patient data.
- Implementing statistical and machine learning models, largescale, cloud-based data processing pipelines and off the shelf solutions for test and evaluation; interpret data to assess algorithm performance.
- Managing and scaling applications using container technology and cloud hosted managed services.
  Programming languages\Techniques\Tools: Python, Apache Spark, BigQuery, Kubernetes, Argo, Dataflow, Apache Beam, Terraform, Docker, R.

VNS Health, New York City, NY
Data Scientist (Feb 2019 – June 2020)

- Develop, build, test and deploy machine learning algorithms to support development of business processes for healthcare organization and subsidiary health plan provider, to improve business outcomes and quality of care.
- Create and maintain framework for deploying machine learning algorithms using APIs.
- Utilize resulting applications to implement, track and monitor predictive models used to guide business decisions.
- Engineer computational solutions and develop algorithms and applications to meet the predictive needs of clinical and business units across the VNS Health.
- Identify clusters of sub-populations of patients who may benefit from targeted care-management strategies improves positive predicted value for patient outcomes based on sub-modelling for each cluster.
- Ensure accuracy of deployed algorithms is monitored on an ongoing basis; alert management when algorithm performance declines, identify causes.
- Ensure data quality throughout all stages of acquisition and processing, including sourcing, collection, ground truth generation, normalization & transformation.

  Programming languages\Techniques\Tools: R, SQL, Python, Apache Spark, Tableau, H2O, Random Forest, XGBoost, Light GBM, Regression, Clustering, KNN, GBM, PCA, SVD.

Jvion Inc., Johns Creek, GA
Data Scientist (June 2017 – Jan 2019)

- Design statistical models/programs using R/Python to successfully test hypotheses and answer targeted questions in healthcare outcomes research.
- Design algorithms for the recommended actions/interventions that will best prevent adverse events and deterioration.
- Cluster analysis for identifying sub-populations of complex patients who may benefit from targeted care management strategies and improvising positive predicted value for patient outcome by sub-modelling on each cluster.
- Perform analysis on the targets including hospital readmission among Acute Myocardial Infarction (AMI) patients, IP visits, ER visits, MRSA among diabetes patients, congestive heart failure, Clostridium difficile (C. diff.), pressure injury, sepsis and fall-injury.
- Writing complex SQL queries for data investigation and mapping to extract data for analysis.
- Build algorithms to reduce predictive analytics in driving population-level insights and the expected ROI from predictive population health analytic solutions.
- Report and visualize results of statistical analyses, in the form of graphs, charts, and tables using Tableau.

  Programming languages\Techniques\Tools: R, SQL, Python, Apache Spark, Tableau, H2O, Random Forest, XGBoost, DBSCAN Clustering, KNN, GBM, PCA, SVD.

PayTooth Software Solution Pvt Ltd., Pune, India
Co-founder (July 2015 – Aug 2016)

- Proposed & implemented a new idea where money can be transferred easily in absence or low range of cellular network.
- Designed & Developed application for PayTooth.
  <u>**Programming languages\Techniques\Tools**</u>: R, SQL, Python, Apache Spark, Tableau, H2O, Random Forest, XGBoost, DBSCAN Clustering, KNN, GBM, PCA, SVD.

EDUCATION

Auburn University – Auburn, AL
Ph.D. in Computer Science (August 2020 – Present)
Pursuing while working full-time.

University of Illinois – Springfield, IL
MS in Computer Science (Jan 2016 – May 2017)
Honors In Computer Science for best academics and research.

Symbiosis Institute of Technology – Pune, India
B.Tech in Computer Science (July 2011 – May 2015)
Affiliated to Symbiosis International University.

PUBLICATIONS

May 2021	Graph-Based Link Prediction between Human Phenotypes and Genes, ***Mathematical Problems in Engineering***
Feb 2019	Pediatric Population Health Analysis of Southern and Central Illinois Region: A Cross Sectional Retrospective Study Using Association Rule Mining and Multiple Logistic Regression***, Computer Methods and Programs in Biomedicine***
Apr 2017	A Novel Reinforcement Sample Learning Strategy for Convolution Neural Network in Computer Aided Diagnosis System for Breast Cancer, ***SIIM conference 2017***
Oct 2015	Introducing a Hi-Tech - Cloud based Public Transport System, ***International Journal of Computational Intelligence Research***
Jun 2015	PayTooth - A Cashless Mobile Payment System based on Bluetooth, ***International Journal of Computer Applications***
Apr 2015	Comparative Review of Existing Mobile Payment Systems, ***International Journal of Applied Engineering Research***
Jan 2015	Envision of I-RS (I-Railway System)-based on Cloud Computing, ***International Journal of Science, Engineering and Technology Research***
Jan 2014	Evolution, Envisage of Mobile Network, ***International Journal of Scientific Engineering, and Technology Research.***