

RUSHABH PATEL

MACHINE LEARNING & DATA SCIENCE PROFESSIONAL



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SUMMARY

Highly skilled and accomplished Machine Learning & Data Science Professional with extensive 7+ experience in designing, developing, and implementing advanced algorithms and models to drive innovation and optimize business processes. Adept at leveraging cutting-edge technologies and tools to deliver scalable and efficient ML infrastructure solutions. Proven expertise in collaborating with cross-functional teams to align technical capabilities with business requirements. Possess a strong track record of delivering successful projects and achieving optimal outcomes.

PROFESSIONAL EXPERIENCE



VNS Health, New York City, NY
Senior ML Engineer (Dec 2022 – Present)

- Co-led the architectural redesign process, ensuring scalability, reliability, and efficiency of the new ML infrastructure, while significantly reducing the time to productionize.
- Collaborated with the team to revamp the existing ML architecture and Act as a subject matter expert, offering insights and recommendations on scaling and optimizing ML infrastructure and processes.
- Developed a comprehensive CI/CD-based architecture to streamline the model development and deployment pipeline, accelerating the time to production and enhancing overall efficiency.

Programming languages\Techniques\Tools: Python, AWS Sagemaker, Airflow, Snowflake, R, SQL, Node.js, JavaScript,



EvolutionIQ, New York City, NY
Senior ML Engineer (Oct 2022 – Dec 2022)

- Worked closely with the ML product manager to map business requirements to a machine learning solution, ensuring alignment between technical capabilities and client needs.
- Collaborated with the ML team to integrate the developed models into Evolution's machine learning platform, enabling seamless deployment and scalability for production use.

Programming languages\Techniques\Tools: Python, PyTorch, Tensorflow, Bigquery, Keras, SQL



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

- 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, PyTorch, Spacy, HuggingFace



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

- Develop, deploy, and maintain cutting-edge machine learning algorithms to drive business process innovation and enhance care quality for a leading healthcare organization and its health plan subsidiary.
- Create and maintain framework for deploying machine learning algorithms using APIs.
- Utilize advanced predictive models to implement, monitor, and guide business decisions, ensuring optimal outcomes across clinical and business units within VNS Health.
- Proactively monitor algorithm accuracy, promptly addressing performance declines and identifying root causes.
- Ensure high data quality throughout the acquisition and processing stages, from sourcing to normalization and 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 and algorithms to improve healthcare outcomes. This includes using R/Python to test hypotheses, design interventions, and identify sub-populations of patients who may benefit from targeted care.
- Perform analysis on healthcare data. This includes analyzing hospital readmission rates, infection rates, and other factors that can impact patient outcomes.
- Report and visualize results of statistical analyses. This includes creating graphs, charts, and tables to communicate the results of statistical analyses to stakeholders.
- Utilize cluster analysis to identify sub-populations of complex patients, improving positive predicted value for patient outcomes through targeted care management strategies. Additionally, analyze various targets such as hospital readmission, ER visits, MRSA, congestive heart failure, Clostridium difficile, pressure injury, sepsis, and fall-injury.

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.

Programming languages\Techniques\Tools: Leadership, R, Python

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

Dec 2021 Application of Protein Language Models to low-N Engineering of metalloproteinase inhibitors,
International Conference on Computational Science and Computational Intelligence (CSCI)

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- 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***