

Samreen Aziz

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DATA SCIENTIST, DEVELOPER, & AI/TECH SOLUTIONEER

With 5+ years of experience in data science, product management, software development, and technical consulting, I am a passionate data scientist and developer with a biomedical engineering background. I leverage my technical expertise to drive innovation and deliver impactful solutions.

KEY COMPETENCIES

Data Science/Machine Learning

Programming Languages: Python, R, MATLAB, JavaScript, SwiftUI

Data Analysis & Visualization: SQL, Data Analytics, Data Visualization, Tableau, Pandas, NumPy, scikit-learn, matplotlib, Google Cloud Platform, Dataiku, Spark, Hadoop

Machine Learning: Supervised Learning, Unsupervised Learning, Deep Learning, Model Deployment

Front End Development:

HTML, CSS, JavaScript, REST APIs, React JS, Figma, Vite, SwiftUI

Agile and Code Collaboration:

Jira, Asana, Confluence, GitHub, BrainPad, Scrum, Agile Methodologies

Soft Skills

- Excellent communication and problem-solving skills
- Strong teamwork and organizational abilities
- Adaptable and results-oriented
- Passion for learning and innovation
- Results oriented

PROFESSIONAL EXPERIENCE

ASSOCIATE ENGAGEMENT MANAGER

JULY 2022 - NOVEMBER 2024

VALIDERE TECHNOLOGIES

- Leveraged data-driven insights to optimize the implementation of a large-scale software solution, resulting in a 700% ROI.
- Collaborated with cross-functional teams to ensure successful adoption and maximize impact.
- Designed metrics for a performance scorecard to inform product go-live readiness. This scorecard supported internal teams in reducing product downtime and identifying bugs in the pipeline, and the client's team in improving training data quality.
- Demonstrated strong analytical skills across complex systems to resolve challenges, optimize processes under tight deadlines and limited resources within a dynamic startup environment.
- Took on a dynamic and evolving role, working tirelessly to meet SLAs despite limited resources and training during a transitional period. Demonstrated initiative and perseverance to deliver impactful results in a resource-constrained environment.

Key Accomplishments:

- *Achieved a 700% ROI through effective implementation and optimization.*
- *Improved data quality and reduced downtime with data-driven insights.*
- *Successfully implemented client-requested features using React.js and SQL.*
- *Developed and implemented data ingestion and analysis scripts using Python.*
- *Demonstrated strong technical skills and problem-solving abilities in a fast-paced environment.*

DATA SCIENTIST

DECEMBER 2020 - JULY 2022

AVIVA DIGITAL

- Leveraged advanced analytics (Dataiku, K-means clustering, XGBoost, Random Forest, CatBoost) to produce actionable insights and drive business growth. Developed and presented growth and benefits reports to support understanding of business growth post-pandemic.
- Built automated conversion models querying data from Google Ads, HVQ, and Datamart. These models supported brokers and the marketing team in prioritizing customer engagement and ad targeting.
- Developed an actuarial business forecasting tool using Python and machine learning to predict the impact of pricing strategies on customer acquisition, retention, and overall business performance.
- Identified patterns in customer data suspected of fraud, leading to an investigation that identified over 600 entries of quoter data as sources of a phishing program. Became an SME for quotes data storage pipelines.
- Demonstrated leadership by spearheading a team to improve onboarding practices for new hires in the Data Science team and co-implementing an improved Buddy system.

Key Accomplishments:

- *Increased marketing efficiency through automated model deployment.*
- *Reduced fraud losses through early detection and investigation.*
- *Improved data quality and accessibility, leading to faster data analysis and better decision-making.*

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COGNITIVE CONSULTANT

MARCH 2020 - DECEMBER 2020

INTERNATIONAL BUSINESS MACHINES (IBM)

- Led the development of virtual assistants using natural language processing tools and ensured client satisfaction through consistent stakeholder feedback.
- Improved project efficiency by streamlining workflows, developing documentation, and facilitating knowledge transfer.
- Contributed to technical excellence through code reviews and the development of new features.
- Provided technical leadership by mentoring new team members and organizing effective collaboration between SMEs and builders.

Key Accomplishments:

- Successfully delivered two virtual assistants to clients, meeting project timelines and exceeding performance expectations.
- Enhanced team collaboration and knowledge sharing through effective documentation and mentorship.
- Implemented a new feature that increased user satisfaction and engagement.

EDUCATION

SOFTWARE ENGINEERING DIPLOMA

BrainStation, 2024

MASTERS OF APPLIED SCIENCES IN BIOMEDICAL ENG

Specialization in Data Science

Carleton University, 2021

HONOURS BACHELORS OF SCIENCE (NEUROSCIENCE)

University of Toronto, 2018

PROJECTS

CUPPA | FULL STACK DIGITAL HEALTH APPLICATION

Platform for women in postpartum recovery to find local support

MASTER'S THESIS | MOTION DETECTION AND CLASSIFICATION IN NICU PATIENTS USING PRESSURE SIGNALS FROM A PSM

Developed a cutting-edge algorithm to monitor patient movement in real-time, enabling improved patient care and safety. The algorithm achieved 87.29% accuracy in classifying movement direction.

CERTIFICATIONS/COURSES

- Web Scraping with Python (DataCamp, 2024)
- ML for Healthcare Applications (Carleton University, 2019)
- Signal Processing (Carleton University, 2020)
- Professional Scrum Master II (January 2024)
- Professional Scrum Product Owner I (December 2023)
- DP-100 MS Azure for Data Science (September 2020)
- Microsoft Azure Fundamentals (June 2020)
- Data Science in Stratified Healthcare and Precision Medicine, University of Edinburgh (June 2018)
- Entrepreneurship 101 (May 2017)

PUBLICATIONS

- Best Student Paper Award at Medical Measurements and Applications Symposium 2020: S. Aziz, Y. S. Dosso, S. Nizami, K. Greenwood, J. Harrold and J. R. Green, "Detection of Neonatal Patient Motion Using a Pressure-Sensitive Mat", 2020 IEEE International Symposium on Medical Measurements and Applications (MeMeA), Bari, Italy, 2020, pp. 1-6, doi: 10.1109/MeMeA49120.2020.9137147.
- Dosso, Y. S., Aziz, S., Nizami, S., Greenwood, K., Harrold, J., & Green, J. R. (2020, June). Neonatal Face Tracking for Non-Contact Continuous Patient Monitoring. In 2020 IEEE International Symposium on Medical Measurements and Applications (MeMeA) (pp. 1-6). IEEE.
- Dosso, Y. S., Aziz, S., Nizami, S., Greenwood, K., Harrold, J., & Green, J. R. (2020, July). Video based neonatal motion detection. In 2020 42nd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC) (pp. 6135-6138). IEEE.