

# 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

**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

### 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

### TECHNICAL 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.

### 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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## TECHNICAL 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.