Ibrahim Byiringiro

Senior Data Analyst | Data Scientist | Statistical Research Leader | Analytics & Automation Specialist

Boston, MA
LinkedIn: Link | GitHub:Link

SUMMARY

Senior analytics professional with 15+ years of experience applying statistics, data science, and quantitative research to solve complex challenges across education, government, and international development. Proven track record of leading data modernization initiatives, developing automated reporting systems, building interactive dashboards, and delivering high-impact analyses that inform strategic decision-making.

Expert in SQL, R, Python, machine learning, statistical modeling, data visualization, and workflow automation. Combines deep methodological expertise with hands-on technical skills and leadership experience managing analytical teams, training professionals, and collaborating with executive stakeholders.

TECHNICAL EXPERTISE

Programming & Analytics: SQL, R, Python, Stata, Statistical Modeling, Machine Learning, Predictive Analytics, Data Quality Assurance

Data Engineering & Automation: ETL Pipelines, Data Transformation, Database Queries, Google Apps Script, APIs, Workflow Automation, Reproducible Code Development

Visualization & Reporting: Power BI, Looker Studio, Tableau, Google Sheets, Excel, Data Storytelling

Platforms & Tools: SQL Server, Snowflake, BigQuery, DBeaver, GitHub

Professional Skills: Project Leadership, Research Design, Policy Analysis, Stakeholder Engagement, Technical Training, Team Leadership

PROFESSIONAL EXPERIENCE

Boston Public Schools: Office of Data & Accountability | Boston, MA

Research & Data Analyst *| 2021 – Present*

- Lead complex analytics, reporting, and automation initiatives supporting programs serving over 100 district schools, 50,000+ students and schools staff and parents.
- Designed and implemented the district's first comprehensive LAS Links assessment analysis to evaluate student performance trends and inform instructional planning.
- Developed automated ACCESS assessment completion trackers and interactive dashboards providing district and school leaders with real-time operational insights.
- Modernized multilingual learner compliance reporting by creating automated workflows using SQL, R, Stata, and Google Apps Script, significantly reducing manual processing time.
- Built scalable Google Apps Script solutions that automated data distribution, permissions management, and dashboard data refresh processes across 100+ school files.
- Developed data validation methodologies to improve consistency between schools, district systems and state reporting requirements.
- Produced reusable SQL queries, R scripts, and documentation that improved team efficiency and reproducibility.
- Trained analysts and cross-functional teams on automation tools and best practices.

United Nations Statistics Division (UNSD) | International Assignments

Statistical Consultant | *2016 – 2019*

- Supported national statistical offices in countries including the Philippines, Jordan, Ethiopia, Uganda, and Rwanda in developing Data User Engagement Strategies.
- Designed and delivered professional development workshops on data storytelling, data communication, and effective use of official statistics.
- Provided technical guidance on strengthening data dissemination practices and increasing the impact of national statistical systems.

National Institute of Statistics of Rwanda | Kigali, Rwanda

Director of Statistical Methods, Research & Publications | *2017– 2020*

- Directed statistical methodology, research, and publication activities supporting national surveys, government performance monitoring, and evidence-based policymaking.
- Led teams of statisticians and analysts responsible for data processing, quality assurance, statistical analysis, and dissemination.
- Developed statistical models and key performance indicator frameworks for evaluating government policies and programs.
- Led analysis of national User Satisfaction Surveys and contributed to the implementation of Rwanda's 2019–2020 Household Living Conditions Survey.
- Designed and delivered technical training that strengthened analytical capacity across the organization.

Team Leader Statistician | *2014 – 2017*

- Conducted quantitative analyses of large-scale demographic, economic, and social datasets.
- Supported survey methodology, sampling design, data processing, statistical analysis, and publication of official statistics.
- Collaborated with government institutions and international partners to improve statistical systems and data quality.

EDUCATION

Master of Science in Data Science (pending)
Northeastern University — Khoury College of Computer Sciences | Boston, MA

Bachelor of Science (Honours) in Applied Statistics (4.0 GPA)
University of Rwanda | Rwanda

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

- IBM Data Science Professional Certificate — Machine Learning, SQL, Python & Data Science
- Power BI Data Management & Reporting Training — Boston Public Schools
- Demographic Analysis & Population Projections — U.S. Census Bureau
- Advanced Data Management & Analysis using Stata — SCG Ltd.

LANGUAGES

English (Fluent) • Kinyarwanda (Fluent) • French (Fluent) • Swahili (moderate)