

Mackenzie Bogiages

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OBJECTIVES

Seeking a challenging and impactful leadership opportunity with a healthcare organization aiming to leverage advanced analytics.

WORK EXPERIENCE

IBM

Cambridge, MA

Data Scientist | Senior Consultant

October 2018 – Present

Clinical Intelligence Automation with Natural Language Processing on AWS

Planned and developed an end-to-end data platform for multiple major health insurers to automate prior authorization for obesity, infertility, varicose veins, and complex spinal surgeries.

- Led a team of ten data scientists using scrum methodologies and agile project management. Established and built relationships between our technical teams and the clients' clinical teams.
- As asset owner, engaged with client executives to sell the solution as a service by giving client demos, collaborating on value cases, giving sales presentations, answering technical questions, and writing legal documents. Worked with senior leadership and partners to develop our solution into a reusable offering and create go-to-market and sales materials.
- Achieved 50% reduction in clinical workload, 20% operational savings, and above 90% accuracy for the rules engine.
- Designed and deployed a scalable and serverless architecture with the clients' IT assets.
- Increased scalability and implementation speed of our solution outside of client work. Led the development of a medical policy web scraper and the build out of other features, including machine learning models for data classification.

Clinical Evaluation for Medical Device Regulation

Developed a cognitive evidence gathering solution for medical device regulation that expedites client classification, summary, and evidence gathering processes.

- Achieved a 2,600% increase in speed, 660% increase in daily throughput, and 91% overall accuracy.
- Led the model training efforts and data scientists, facilitated knowledge transfer sessions between client SMEs and our technical team, developed training guidelines used internally and externally throughout the project.

Demand Forecasting Platform

Developed a demand forecasting platform for biologics for a multinational biopharmaceutical company.

- Reached 94% accuracy by using 30+ analytical features across 4,000+ accounts and leveraging algorithms such as XGBoost, Linear Regression, and Convolutional Neural Networks.

Vaccine Tenders Analysis

Derived insights around international tender processes for 5 major regions for a multinational pharmaceutical company.

- Performed descriptive statistics on 800 fields and completed data loss analysis to inform future state development.

SKILLS

- Analytics: Statistical Analysis, Natural Language Processing, Forecasting, Bayesian Statistics, Markov Models, Optimization
- Programming: Python, R, Stata, SQL, MatLab, GAMS, Octave
- Tools: Jira, Github, Sourcetree, Excel, AWS, Asana, Trello
- Languages: Spanish (Fluent), Modern Greek (Intermediate)
- Soft Skills: Public Speaking, Client Relations, Critical Thinking, Problem Solving, Agile Project Management

EDUCATION AND HONORS

University of North Carolina at Chapel Hill –

Chapel Hill, NC

B.S. Statistics & Analytics, B.A. Economics, minor Hispanic Studies

May 2018

Universidad Complutense de Madrid – *Exchange Program*

Honors: Carolina Research Scholar, Buckley Public Service Scholar, Heritage Greece Scholar

CERTIFICATIONS AND PUBLICATIONS

Certifications

- Certified Data Scientist – The Open Group
- Certificación Profesional: Ciencia de Datos – Tecnológico de Monterrey
- Data Science Professional – Coursera

Publications

- Bogiages, Mackenzie (2017) "Examining the Impact of Education on Diabetes Rates," *Undergraduate Economic Review*: Vol. 14 : Iss. 1 , Article 12. <https://digitalcommons.iwu.edu/uer/vol14/iss1/12>