

# Mackenzie Bogiages

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## OBJECTIVES

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

## WORK EXPERIENCE

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### 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

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- 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, Tableau, Asana, Trello
- Languages: Spanish (Fluent), Modern Greek (Intermediate)
- Soft Skills: Public Speaking, Client Relations, Critical Thinking, Problem Solving, Agile Project Management

## EDUCATION AND HONORS

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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

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### Certifications

- Certified ScrumMaster – Scrum Alliance
- 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>