

# LOUIS AGYEKUM

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## EDUCATION

**University of Ghana, Accra - Legon, Ghana**

**July 2016 – July 2020**

- **BA.** Statistics and Economics **Major GPA: 4.00 CGPA: 3.81/4.00**
- **Relevant courses:** Software Design and Implementation, Data Structures and Algorithms, Discrete Mathematics, Probability Distributions, Complete 2020 World Quant University's Bootcamp, Calculus I and II
- **Honors and Awards:** **UG Full-Tuition Scholarship:** Full-Ride Scholarship worth (\$50,000); **Discovery Funds Grant:** One Thousand Dollars (\$1000); **Dean's List:** Spring 2018, **Google Conference Scholarship**

**Trent University, Peterborough -Ontario, Canada**

**September 2021 – April 2023**

- **MSc.** Big Data Analytics **Major GPA: 4.00 CGPA: 3.85/4.00**
- **Relevant courses:** Financial Econometrics, Data Structures and Algorithms, Introduction to computing, Advanced Statistics, Complete 2022 Machine Learning Bootcamp, Data Science Infinity Professional
- **Honors and Awards:** **Trent Full-Tuition Scholarship:** OGS Scholarship worth (\$20,000); **Dean's List:** Spring 2022

## SKILLS

- **Programming Languages:** Python, R, MySQL, MATLAB, SPSS, STATA, SAS, AWS Environment, Excel
- **Libraries:** NumPy, Pandas, Tensorflow, Keras, Pytorch, Matplotlib, Scikit – learn, Jupyter Notebooks
- **Developer Tools:** Git, VS Code, Atom, GitHub, Flask
- **Other Skills:** Agile Development, Machine Learning, Microsoft Office Suites, Problem-solving, Teamwork, Tableau

## EXPERIENCE

**Data Scientist / Machine Learning Engineer, Information Systems and Services, Trent University**

**Sep 2021 – March 2023**

- Developed a full-stack web application that is used by 1000+ Trent University faculty, staff, and students
- Developed and evaluated algorithms using machine learning and statistical modeling techniques to increase performance, quality, quality, data management, and accuracy
- Designed machine learning systems and self-running artificial intelligence (AI) software to automate predictive models
- Increased the speed of the development by 30% within a few weeks by implying effective problem-solving techniques
- Led various initiatives to promote a data-driven culture, including training sections, workshops, and presentations to senior leadership.
- Cooperated with a group of nine interns and incorporated test-driven development to improve code quality and fix 300+ bugs

**MTN Group, Junior Data Scientist, Accra – Ghana**

**Aug 2018 – Aug 2021**

- Developed a machine learning pipeline and trained models with end-to-end Bayesian segmentation network, resulting in \$400000 annual savings
- Delivered multiple ad-hoc projects using data analysis tools, including Oracle SQL and Microsoft SQL servers
- Analyzed outlier data using advanced Microsoft Excel skills, including pivot tables and V-Lookups, to drive business insights

**Data Analyst Intern, Ministry of Finance, Accra -Ghana**

**May- August 2017**

- Selected from a pool of 10,000+ applicants to participate in a four-month internship
- Conducted comprehensive data analysis using Excel and SQL to inform the development of a national financial management information system
- Developed and implemented a data quality assurance plan that reduced errors by 50%, improving the accuracy and reliability of critical data used for program evaluation and decision making

## TECHNICAL PROJECTS: Portfolio Website: <https://louis-agyekum.github.io>

**“You Are What You Eat” Customer Segmentation | Python, SQL, Machine Learning**

- Used a k-means clustering on grocery transaction data to split out customers into distinct “shopper types” that could be used to better understand customers over time, and to more accurately target customers with relevant content and promotions.

**“Grocery Delivery Optimization” | Python, SQL, Machine Learning**

- Created and applied a Genetic Algorithm in Python to search out a near-optimal route across 10 addresses. This led to estimated savings of up to 50% in both delivery time and fuel consumption over a route based on transaction order alone.