BEDILU JEBENA Charlotte, NC | bjebena@charlotte.edu | LinkedIn | GitHub | Tableau

PROFESSIONAL SUMMARY:

PhD student in Data Science with a strong background in Health informatics, clinical medicine and public health. Experienced in applying machine learning, statistical analysis, and data visualization to generate actionable insights in healthcare. Dedicated to advancing research that improves diagnostic accuracy, optimizes patient care, and promotes health equity through the development of clinical decision support system. Committed to integrating multidisciplinary expertise to contribute meaningful innovations in data science and healthcare delivery.

SKILLS:

- Statistical Analysis: Regression Analysis, Hypothesis Testing, Chi-Square, T-Tests, data quality assurance
- Languages: Python, R (Intermediate), SAS, SQL
- Machine Learning & AI: Applied ML, XAI, Predictive Modeling, Feature Engineering, Model Evaluation, Classification/Regression, DevOps, Git, Github in VS Code,
- Visualization tools: Tableau, Power BI, Excel, Streamlit, ggplot2 in R, Altair, Matplotlib, Seaborn in python
- Database Management & Cloud: Advanced SQL, ETL, VLOOKUP, Data Wrangling, Cloud Computing (AWS)
- Clinical and Public Health: Clinical Research, Outbreak investigation, Designing health survey, Epidemiology, Health Informatics, Health research Methodology,
- Soft Skills: Problem-solving, Analytical thinking, Business Analysis, technical communication, project management
- Project management tools: Jira

EDUCATION:

- The University of North Carolina at Charlotte, Charlotte, NC Cohort of 2025, Expected Grad- 2029
  Ph.D. in Data Science
  Relevant coursework: Statistics for Data Science, Fundamentals of AI for Data science, Research Design
- The University of North Carolina at Charlotte, Charlotte, NC Aug 2022 - May 2024
  M.S. in Health Informatics and Analytics (Data Science concentration) **GPA: 4.0/4.0**
  Relevant Coursework: Healthcare Data Analysis, Database system for Data Scientist, Applied Machine Learning, Artificial Intelligence in Healthcare, Business Intelligence in Healthcare, Decision Analysis. Visual Analysis, Cloud Computing
- Ambo University, Ambo, Ethiopia Feb 2012 - June 2017
  Doctor of Medicine (M.D) **GPA: 3.31/4.0**
  Relevant Coursework: Internal Medicine, Surgery, Pediatrics, clinical research, Social and Population Health courses
  ***Research Thesis:** "Assessment of Knowledge, Attitude and Practices on Breast Cancer and Breast Self-Examination among female students in Ambo university, Ethiopia"*
- Haramaya University, Harar, Ethiopia Nov 2005 – July 2008
  B.S. in Public Health **GPA: 3.33/4.0**
  Relevant Coursework: Biostatistics, Epidemiology, Research methodology, Health service management, Health Education and promotion, Health Economics, Environmental Health
  ***B.Sc Thesis**: "Knowledge, Attitudes and Practices regarding HIV/AIDS among High School students in Harar, Ethiopia"*

AWARDS AND HONORS:

- **Wayland Cato Jr. First-Year Doctoral Student Fellowship, UNC Charlotte**
  Awarded for exceptional potential to contribute significantly through doctoral research - 2025
- **Phi Kappa Phi Honor Society**
  Inducted: 2024 – Top 10% of graduate students invited for academic excellence

WORK EXPERIENCE:

Graduate Teaching Assistant

University of North Carolina at Charlotte | Aug 2023 – Dec 2023

- Assisted in teaching advanced data science topics, including data wrangling, statistical analysis, and ML model development. Guided students in applying data normalization and quality techniques across large healthcare datasets.
- Provided mentorship on statistical methods, helping students build models and interpret complex data insights.

Senior Pharmacy Technician

Centene Corporation (Remote) | Sept 2019 – Aug 2025

- Managed pharmacy benefit requests, applying data analysis to reduce decision turnaround time to ensure compliance with clinical standards, contributing to improved decision-making processes within the team.

General Practitioner Medical Doctor Intern

Adama Referral Hospital, Ethiopia | Nov 2015 – May 2017

- Analyzed clinical data for patient condition assessments and treatment optimization; utilized SPSS for research on breast self-examination practices, identifying key trends and publishing findings.

Public Health Officer

Finchaa Sugar Factory Hospital, Ethiopia | Sept 2008 – Jan 2012

- Led the analysis of public health data, applying data normalization to improve reporting accuracy and ensure consistent data quality. Conducted health risk assessments, developed interventions, and provided insights using epidemiological data analysis resulting in improved rate of childhood vaccination coverage by 13%, and utilization of Insecticide treated bed net by 45%.

PROJECTS:

1. **Michuu Auto ML | GitHub | Streamlit**
   - Created End-to-End Machine Learning Platform that automates data cleaning, data visualization for Exploratory Data Analysis which reduce data processing time.
   - The platform also handles statistical analysis, Comparing ML models, Optimizes hyperparameters, select the champion model, identify most important variables/features and generate insights report instantly accelerating research
2. **Capstone Project: Analyzing Prevalence of Metabolic Syndrome and Associated Risk factors in U.S. |**GitHub | Tableau link
   - Conducted data cleaning and wrangling using Python and SQL ensuring data quality for analysis.
   - Applied feature engineering to enhance model performance and performed statistical tests to identify significant risk factors for metabolic syndrome. Performed statistical analyses including chi-square and t-test to discern significant associations.
   - Developed a machine learning model to predict the likelihood of metabolic syndrome, achieving an accuracy of 98%. Designed an interactive Tableau dashboard to visualize trends and findings for stakeholders.
3. **Predicting Extended Length of Stay in ICU using ML Model in Python |** GitHub Link
   - Extracted and cleaned data from the MIMIC-IV database using SQL, and performed exploratory data analysis (EDA) in Python. Applied machine learning models (e.g., Random Forest, XGBoost) to predict prolonged ICU stays, helping to improve patient care planning and resource allocation.
   - Evaluated model performance using various metrics, achieving an accuracy of 88% and enhancing predictive capabilities.
4. **Diabetes Mellitus Predictive Machine Learning model using Python |** GitHub Link
   - Developed a machine learning model to predict the likelihood of diabetes, leveraging logistic regression and decision tree algorithms. Improved model performance through feature engineering and hyperparameter tuning, achieving an accuracy of 86.7%.
   - The model provides insights for early intervention and personalized healthcare strategies.

5. **Analysis of Factors Affecting Survival Months among Breast Cancer Patients in the United States 2000-2018 using SAS:** Link: Tableau Public
   - Conducted linear and logistic regression analyses, chi-square tests, t-tests, and other statistical analyses to identify factors influencing survival months among breast cancer patients in the United States using the SEER dataset and SAS software. Found that breast cancer incidence is higher in white women, but mortality rates are greater in black women. Additionally, a statistically significant association was observed between survival months and factors such as race, chemotherapy, and age. The greater the gap between diagnosis and treatment, the lower the survival period among breast cancer patients.
   - Developed interactive visualizations dashboard to explore these factors impacting survival among breast cancer patients, aiding in treatment planning and research.