

## EDUCATION

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### Master of Science in Industrial Engineering

**Jan 2024 – Dec 2025**

*Lamar University, Beaumont, TX*

- *Progressive GPA: 4.0/4.0*
- *Coursework:* Statistical Decision Making, Engineering Database Design and Management, AI for IEs, Data Mining, Applied Programming (Python), Human Factors and Ergonomics, Operations Research

### Bachelor of Science in Mechatronic Engineering

**Sep 2014 – April 2019**

*Dedan Kimathi University of Technology (DeKUT), Nyeri, Kenya*

- *GPA: 3.75/4.0*
- *Selected Coursework:* Statistics, Algebra, Calculus I, Calculus II, Calculus III, Numerical Analysis, Differential Equations, Programming (Python & C++), Geometry.

## RESEARCH EXPERIENCE

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### Research Assistant | Center for Resiliency | Lamar University

**Jan 2024 – Present**

- Assessed and mapped cumulative impacts of air pollution, climate change and social determinants of health on residents of Beaumont-Port Arthur Gulf communities.
- Built machine learning models to predict air quality using satellite-derived atmospheric and meteorological data.

### Research Assistant | Human Factors and Ergonomics Lab | Lamar University

**Feb 2024 – Dec 2024**

- Investigated the effects of student's discomfort on cognitive load to optimize learning, resulting in a peer-reviewed publication at The Human Factors and Ergonomics Society (HFES).
- Designed and conducted a study to understand age-related balance issues and driving behaviors on driving performance, safety and regional resilience.

### Research Intern | One Vision Kenya | Kenya

**Jan 2018 – June 2028**

- Collaborated with One Vision Kenya to explore the status of e-waste production, management and policy regulations in Kenya.
- Developed a framework and policy recommendations that could help avert the inevitable e-waste crisis, especially in major cities.

## PUBLICATIONS AND WORKING PAPERS

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- Nyamollo, V., & Li, Y. (2025). In-Class Stretching Break to Augment College Students' Comfort and Reduce Mental Workload. *Proceedings of the 69<sup>th</sup> Human Factors and Ergonomics Society Annual Meeting*. Chicago, IL.
  - Nyamollo, V., Zhang, B., Chang, C., & Li, Y. (2025). Predicting PM2.5 Concentration in Under-Monitored Urban Areas Using Satellite-Derived Predictors and Machine Learning. *Submitted to Tackling Climate Change with Machine Learning at NeurIPS Workshop 2025*.
  - Nyamollo, V., & Chang, C. (2025). Spatial Mapping of Cumulative Environmental and Social Risks to Assess Health Outcomes and Local Community Resilience in Gulf Coast Communities [Working paper].

## WORKSHOP PRESENTATIONS

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- Nyamollo, V. ACTIONS is All We Need to Secure Global Energy (2025). *Presented at the 54<sup>th</sup> St. Gallen Symposium*, St. Gallen, Switzerland, May 2025.
  - Reyes, M., Angeles, M., Nyamollo, V., Li, Y., & Felipe, L. (2025). Compensatory Driving Behaviors in Older Adults with Balance Issues (2025). *Presented at the 2<sup>nd</sup> Lamar University Graduate Conference*, Beaumont, TX.
  - Nyamollo, V., Ochuka, P., & Bosco, J. (2019). On the Wrong Path? The Current State of E-Waste Generation and Management in Kenya. *Presented at the Institution of Engineers of Kenya (IEK) Workshop*, Nairobi, Kenya.

## TEACHING EXPERIENCE

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### Graduate Assistant – Tutoring Services | Lamar University

**Jan 2024 – Aug 2024**

- Tutored undergraduate students in math, calculus and technical writing to improve their academic performance and writing skills. Assisted with research projects and administrative tasks.

**Course Assistant | Department of Mechatronic Engineering, DeKUT**

**Jan 2018 – Dec 2018**

- Planned and led discussions and revisions for the engineering design and calculus courses.

## AWARDS AND HONORS

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|--|-------------|
| • Leader of Tomorrow, St. Gallen Symposium, Switzerland                              | <b>2025</b> |
| • Merit Scholarship, Lamar University, Industrial and Systems Engineering Department | <b>2024</b> |
| • Company Excellence Awards, Vivo Energy Kenya                                       | <b>2020</b> |
| • Vice Chancellor's Academic Achievement Award, DeKUT                                | <b>2018</b> |

## PROFESSIONAL EXPERIENCE

**Data Analyst, Elara Inc. | Nairobi, Kenya**

**Jan 2022 – Dec 2023**

- Conducted market research and industry analysis using R and Python Pandas to produce data-driven insights for the sales and marketing department, resulting in 18% increase in revenues.
- Automated KPI reporting by developing interactive dashboards using Power BI, Tableau, Google Sheets and SQL, reducing manual reporting time by 60%.
- Automated ETL pipeline using SQL thereby boosting data preprocessing efficiency by 25%.

**Project Engineer, Vivo Energy Kenya | Nairobi, Kenya**

**July 2019 – Dec 2021**

- Led successful end-to-end retail automation projects roll out across 102 sites ahead of schedule, earning company-wide excellence award.
- Drove cross-team collaboration, achieving a 26% reduction in project slack.
- Implemented a new safety framework that reduced work-related incidents by 70%.

**Engineering Intern, Vivo Energy Kenya | Nairobi, Kenya**

**Jan 2019 – June 2019**

- Led site surveys and tracked project progress across 50+ retail sites.
- Streamlined stakeholder and contractor coordination, cutting project delays by 15%.

## LEADERSHIP

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|---|--------------------|
| • Founding chair, DeKUT Tutoring Club                     | <b>2015 – 2018</b> |
| • Chair, DeKUT Students Organization Electoral Commission | <b>2018</b>        |
| • Secretary, Climb2Educate Initiative                     | <b>2016</b>        |

## SKILLS

**Languages and Tools:** Python, R, Latex, SQL, PyTorch, TensorFlow, Scikit-Learn, ArcGIS

**Technical Skills:** Data Mining and Modeling, Research, Technical Writing

## REFERENCES

- Dr. Yueqing Li, Associate Professor  
Department of Industrial and Systems Engineering, Lamar University  
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- Dr. James Curry, Associate Professor  
Chair, Department of Industrial and Systems Engineering, Lamar University  
Email: [jcurry@lamar.edu](mailto:jcurry@lamar.edu) Phone: (409)-880-8804
- Dr. Chiung Chang, Associate Professor  
Interim Chair, Sociology Department, Lamar University  
Email: [cchang2@lamar.edu](mailto:cchang2@lamar.edu) Phone: (409) 790-1169