KELVIN ASAMOAH TERKPER

Lafayette, LA 70506 | Email: kelvin.terkper1@louisiana.edu | Mobile: +1 (337) 557 9450.

EDUCATION

University of Louisiana at Lafayette   **Louisiana, United States of America**
- Master of Science in Civil Engineering, (GPA – 3.86)   August 2023 – May 2025

Thesis Topic: An Investigation of the Practical Applications of Unmanned Aerial Vehicles in Traffic Incident Management and Optimizing a Facility Location Framework for Efficient Deployment.

Kwame Nkrumah University of Science and Technology   **Kumasi, Ghana**
- Bachelor of Science in Civil Engineering, First Class Honors (GPA – 3.7)   September 2017 – November 2021

Thesis Topic: Evaluation of Various Bituminous Surface Treatments Containing Hydrated Lime Using the Cantabro Test.

TECHNICAL SKILLS

- **Computer-Aided Design/Engineering –** PTV Vissim, SET-IT, ArcGIS and MS Project.
- **Programming Languages –** Python, MATLAB, and R.
- **Statistical Analysis and Visualization Tools –** Excel, R and Tableau.

WORK AND RESEARCH EXPERIENCE

Louisiana Transportation Research Center, Graduate Research Assistant   **August 2023-Present**
- Led technical documentation efforts by drafting detailed a Drone research report and synthesizing complex findings into actionable recommendations, which improved stakeholder understanding and project implementation for the LaDOTD.
- Streamlined data analysis workflows by developing Python and MATLAB scripts for preprocessing and visualizing large-scale traffic datasets, significantly reducing analysis time and enhancing reporting quality.
- Enhanced project outcomes through effective collaboration with multidisciplinary teams of engineers, planners, and industry stakeholders, successfully integrating diverse perspectives into research deliverables.

DEEP Civil Engineering Consultancy, Assistant Project Engineer   **December 2021-July 2023**
- Conducted AADT counts utilizing street camera footage for analysis on a 5 km stretch to identify the root causes of distress for Achimota Municipal Assembly.
- Developed an excel databases for all existing projects and research, enabling the clerk of works to measure projects' growth.
- Handled sophisticated machines and tools to collect and perform tests such as the California Bearing Ratio on soil samples.

VOLUNTEER, LEADERSHIP AND MENTORSHIP EXPERIENCE

Volunteer   **Lafayette, United States**
- *Big Event (UL Lafayette) Volunteer*   2024
  - Led initiatives in environmental beautification, contributing to both campus and community development.
  - Actively engaged in community service by organizing and executing waste management projects, including roadside trash collection and gutter cleaning, significantly improving local public spaces.

Co-Founder   **Kumasi, Ghana**
- *TERKs Analytics*   August 2020 - Present

I co-founded this volunteering club at KNUST, Ghana to teach students about Data Science and its opportunities.
  - Collected content for weekly data segregation and sorting for students on traffic flow behavior and impact during the COVID-19 pandemic using Excel and R.
  - Tutored 15 undergraduates on how to use ANSYS for simulation of FEM analysis on beams and GIS to analyze geographical data and traffic modeling.
  - Provided one-on-one adaptive instructions for transformational development for 15 undergraduate students with diverse backgrounds.

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Academic Mentor and Tutor   **KNUST, Ghana**

- *Civil Engineering Students Association*   January 2021-September 2021
  - Mentored 3 freshmen on time management, preparation, and presentation of research findings.
  - Explained challenging concepts using planned lessons, assignments, and targeted discussions for 50 freshmen and sophomores on "Introduction to Computer Programming" coursework (CE-257).

HONOURS AND AWARDS

Awards

- Deep South District of the Institute of Transportation Engineers (DSITE) Scholarship Recipient.   [2024]
- 2024 Honors Convocation and Academic Excellence Awards Recipient (UL Lafayette)
- Full Ride Scholarship for MSc. Civil Engineering Program at UL Lafayette (Fall 2023 – Spring 2025 Academic Years)
- Cocoaboard Bright Scholarship Recipient.
  - *Awarded a prestigious full-tuition scholarship for outstanding academic performance, specifically granted to children of cocoa farmers, recognizing exceptional achievements during high school.*

Research Achievements

- Research Paper on "*Comparative analysis of Spatial-Hybrid Machine Learning Models for Vehicle Availability Prediction*" accepted for Presentation at the 2025 ASCE's 2025 Transportation Conference. (Lead Author)
- Research Paper on "*Exploring the Influence of Transportation Equity Factors on Pedestrian Crashes in Louisiana*" accepted for Presentation at the 2025 Annual Transportation Research Board (TRB) Meeting. (Co-Author)

RELEVANT COURSEWORK AND PROJECTS

Probe Data for ITS Application

- *Analysed COVID-19's impact on I-10 traffic patterns in Calcasieu Parish using INRIX probe vehicle data (Jan-May 2020), developing interactive Tableau visualizations that compared pre- and post Stay-at-Home Order traffic metrics to reveal significant mobility reductions and altered traffic patterns.*

Intelligent Transportation Systems (ITS)

- *Developed an ITS architecture using the SET-IT software for a stadium expansion project managing over 80,000 attendees. Created system requirements and ConOps for integrated traffic management including TMC upgrades, dynamic message signs, and transit vehicle tracking. Project interconnected City DOT, University Transit, and Police Department systems, resulting in a structured deployment plan*

PROFESSIONAL DEVELOPMENT AND TRAINING

Workshops / Conferences

- Attended the 104th Annual Transportation Research Board (TRB) Meeting in Washington, DC.   [Jan 2025]
- Attended the 2024 Gulf Region ITS Annual Meeting in Biloxi, Mississippi.   [Oct 2024]
- Attended the 103rd Annual Transportation Research Board (TRB) Meeting in Washington, DC.   [Jan 2024]
- Attended the Deep South ITE 2023 Fall Meeting in Lafayette, Louisiana.   [Oct 2023]
- Participated in a poster presentation at the Southeast Symposium on Contemporary Engineering/AEF Topics 2023 in Arkansas.   [Sep 2023]

Professional Memberships and Affiliations

- Member of the DeepSouth Institute of Transportation Engineers – UL Chapter.
- Member of the American Society of Civil Engineers – UL Chapter