Eugene Boasiako Antwi

Contact

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Skills

Data profiling & analysis

Machine learning

Data Mining

Teamwork and Collaboration

Critical Thinking

Predictive modeling

Python, R, SQL, MATLAB

Business Intelligence Tools:
Tableau, PowerBI, Plotly Dash,
Streamlit

HTML, CSS, Flask

GIS

A detailed and team-oriented individual, well-versed in various statistical methods including predictive and inferential statistics, with a successful history of making interpretations and producing reports. Offering three years of experience collecting data, establishing facts and drawing valid conclusions. Proficient in machine learning paired with first-rate report writing abilities.

Work History

2019-08 - Current

Graduate Research Assistant

Kentucky Transportation Center, Lexington, KY
- Wrote SQL queries to retrieve GPS probe-speed and Waze incident data.
- Performed statistical, qualitative, and quantitative analysis using python and R.
- Planned, modified, and executed research techniques, procedures, and tests.
- Analyzed large datasets and built analytical models to support Kentucky Strategic Highway Investments for Tomorrow (SHIFT) program.
- Conducted, researched, and drafted memos and summaries on risks associated with presence of vehicles on interstate shoulders using crowdsourced big data from Waze.
- Built operational dashboards using HTML, CSS, JavaScript and a python backend framework, Flask, and deployed same on an in-house server using Apache HTTP Server.
- Prepared literature for reports, presentations, or submission to peer-review journals.
- Presented results to field experts at conferences including at the Annual Meeting of the Transportation Research Board (TRB), National Travel Monitoring Expo and Conference (NaTMEC) and ITS Midwest.
- Reviewed manuscripts for presentation and publication at the TRB conference,

2018-08 - 2019-08

Teaching and Research Assistant

Kwame Nkrumah University of Science and Technology, KNUST, Ghana
- Prepared materials for reports, presentations, and submission to peer-reviewed journal publications.
- Demonstrated strong writing skills to generate original correspondence and reports.
- Worked both independently and collaboratively in fast-paced environment to develop a seismic hazard model and map for southern Ghana.
- Attended seminars and symposiums to improve overall knowledge and understanding.

Education

2021-01 - Current

Ph.D.: Civil Engineering

University of Kentucky - Lexington, KY
- Elected to President for Institute of Transportation Engineers, UK Students chapter in 2022.
- Member of UK Graduate Students' Congress Leadership Team

2019-08 - 2021-12

Master of Science: Civil Engineering

University of Kentucky - Lexington, KY
- Elected to Graduate Senator for UK Student Government Association in 2021.
- Elected to Executive Board Member for UK Graduate Students' Congress in 2021.

2014-09 - 2018-05

Bachelor of Science: Civil Engineering

Kwame Nkrumah University of Science and Technology - Ghana
- Elected to Public Relations Officer for Civil Engineering Students' Association in 2017.

Projects

- Processed earthquake data and generated additional synthetic data through Monte Carlo simulations for probabilistic seismic hazard assessment of southern Ghana.
- Built Generalized Random Forest, Mixture Quantile Regression, and Quantile Neural Network models to predict travel times
- Built analytical tool to compute highway performance measures based on user location inputs. Using HTML, CSS, JavaScript and Flask, model was deployed using an Apache HTTP Web Server.
- Built a rule mining model using FP-Growth association rule mining to assess the contributors to traffic crashes in Kentucky.
- Built a movie recommendation system based on with weighted approximate-rank pairwise (WARP) Loss using LightFM python package.
- Undertook a comparative analysis of YOLO-V3, YOLO-V5, EFFICIENT-V2 and DETECTRON2 based on classification and localization on aquarium dataset employing the transfer learning.