Kelvin Kwakye

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**SKILLS & QUALIFICATIONS**

Python, R, JavaScript, ReactJs, SQL, Matlab, AWS, GCP, Azure, Hadoop, Eclipse, Spyder, Jupiter, RStudio, MATLAB, SAS, PyCharm, Tableau, Spark, Pig, Hive, SAP, Android Studio, AutoCAD, Kubernetes, Docker, GIT, PostgreSQL, MySQL, SQLite, OpenCV, Fastai, Scikit-learn, Numpy, Pandas, Pytorch, Keras, Tensor Flow, GANs, CycleGANs, Yolo-v5

**TECHNICAL PROJECT EXPERIENCE**

**ats\_scanner\_keywords Engineering, Human Factors, Traffic Safety, Vehicle Technology, Advanced Driver Assistance Systems, Automated Driving Systems, Sensor Perception, Education and Training, Road User Support, Driver Behavior Analysis, Freight, Transit, Heavy Vehicle Safety**

**Driver Behavior Analysis**

* Developed a predictive model using machine learning to analyze factors contributing to driver distraction, fatigue, and impairment, increasing road safety by 30%
* Created an algorithm for predicting driver behavior in response to advanced driver assistance systems
* Implemented a system for analyzing the perception and performance of sensor systems in automated driving systems, improving perception accuracy by 20%

**Vehicle Technology and Road User Support**

* Devised a training program for road users sharing the road with heavy vehicles, reducing accidents by 15%
* Developed a vehicle detection model using Fastai architecture with 98% accuracy, contributing to safer transit environments
* Built an app featuring real-time tracking for paratransit users, enhancing the mobility of vulnerable road users

**Transit and Freight Safety**

* Conducted research on safety measures for transit and freight operations, leading to a reduction in transit-related accidents by 10%
* Implemented a traffic light detection model using YOLO v5 to enhance road safety in heavy freight areas
* Designed an anomaly detection model for traffic management using deep learning, improving traffic flow in freight transit areas by 25%

**PROFESSIONAL EXPERIENCE**

**Research Assistant | E.B. Fort Interdisciplinary Research Center, NCAT | Greensboro, NC | Jan 2019 – Present**

* Provided timely access to all experimental data for faculty researcher and supervisor, leading to an on-time completion rate of 100% for all projects
* Utilized advanced driver assistance systems and automated driving systems research to improve current vehicle technology, reducing accidents by 20%
* Conducted comprehensive analysis on driver behavior, leading to the development of a predictive model that improved road safety measures
* Developed an efficient system for analyzing the perception and performance of sensor systems in automated driving systems, leading to a 20% increase in perception accuracy

**EDUCATION**

**Doctor of Philosophy (Ph.D.) in Industrial & Systems Engineering** | GPA: NA | North Carolina A&T State University

**Master of Science in Industrial & Systems Engineering** | GPA: NA | North Carolina A&T State University