Kaiser Hamid

Lubbock, Texas
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EDUCATION

Texas Tech University (TTU) **Aug 2024 - Present**
PhD in Industrial Engineering *Lubbock, TX*

Texas Tech University (TTU) **Aug 2024 - Present**
MS in Electrical and Computer Engineering (ECE) *Lubbock, TX*

Bangladesh University of Engineering & Technology (BUET) **Apr 2019 - Jul 2024**
BSc. in Civil Engineering *Dhaka, Bangladesh*

WORK EXPERIENCE

Graduate Research Associate **Aug 2024 - Current**
Autonomous Driving, Computer Vision, Human Factors *Lubbock, Texas*

- **Advisor: Dr. Nade Liang**

Research Associate **Dec 2022 - Jul 2024**
Deep Learning, App Development, Database Management *Dhaka, Bangladesh*

- **Advisor: Dr. Annesha Enam**

TECHNICAL SKILLS

Languages: Python, C, C++, Dart, R, MATLAB
Developer Tools: VS Code, Android Studio
Technologies/Frameworks: GitHub, ReactJS, NodeJS, Git, Mongo, Flutter
Deep Learning Frameworks: TensorFlow, Keras, PyTorch
Libraries: Scikit-learn, Pandas, Numpy, Scipy, OpenCV, Matplotlib, Seaborn
Simulation tool for autonomous driving: CARLA

RESEARCH INTERESTS

Autonomous driving, Computer vision, Cyber security, Human factors.

PUBLICATIONS

- **Hamid, Kaiser**, Liang, Nade, PhD. *"How Good is Good? Evaluating Driving Maneuver Quality Using AI Agents."* **Proceedings of the 69th HFES International Annual Meeting (ASPIRE 2025)**.
- **Hamid, Kaiser**, Noor, Md Sayem, Enam, Annesha, PhD. *"Assessing the Potential of Google Location History (GLH) Data for Travel Behavior Research in the Context of Developing Country."* **Proceedings of the 27th IEEE International Conference on Intelligent Transportation Systems (IEEE ITSC 2024)**.

GRANTS AND AWARDS

- **Research Grant, CASR (JULY, 2024):** Awarded a prestigious $2500 research grant for work on Google Location History.
- **Graduate College Travel Award (SEPTEMBER, 2024):** Received $950 to attend the IEEE ITSC Conference (2024-25).

PROJECTS

- **Pedestrian Detection using Deep Learning:** Developed a pedestrian detection system utilizing deep learning models.
  Technologies: Python, Google Colab [Watch Demo]
- **Traffic Mode Detection & Tracking for Dhaka, Bangladesh:** Built a traffic mode detection and tracking system for urban mobility analysis.
  Technologies: Python, Google Colab [Watch Demo]
- **Gulshan-1 Intersection Simulation for CAPSTONE Project:** Simulated traffic flows at a major intersection to analyze and optimize performance.
  Technologies: VISSIM Software [Watch Demo]
- **Traffic Mode Detection for Dhaka, Bangladesh:** Created a detection system to classify and analyze traffic modes in Dhaka.
  Technologies: Python, Google Colab [Watch Demo]
- **Trip Tracker App for Collecting User Data:** Designed and implemented a mobile app to collect and analyze user trip data.
  Technologies: Flutter, MongoDB [Watch Demo]
- **CARLA HITL (Human In The LOOP):** Designed framework to work with steering, pedal and gear box with data logging
  Technologies: Unreal Engine [Watch Demo]
- **Raspberry Pi 4 Data Logger with CAN Bus:** Developed a compact system using Raspberry Pi 4 to interface with vehicle CAN bus for real-time data logging and sensor integration
  Technologies: Raspberry Pi 4, CAN bus, Python [Watch Demo]

SELECTED COURSES

- Structured Programming and OOP (C, C++)
- Pattern Recognition
- Machine Learning
- Advanced Cognitive Systems
- Design of Experiment