MUHAMMAD MOBIDUL ISLAM

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EDUCATION

(4th *Year* 1st *Semester*) Ph.D. Candidate, Electrical Engineering,
North Carolina A&T State University Greensboro, NC

RESEARCH AREA

• Machine vision • Deep Learning • Autonomous Systems

SKILLS

• Python • C# • C/C++
• MATLAB • LINUX • Android
• Robotic Operating Systems • Deep Learning • Embedded Systems

EXPERIENCE

August 2018 - Present **Research Assistant** **NC A&T SU, Greensboro, NC**
• Machine vision application for the autonomous vehicle.
• Pedestrian, bicycle, traffic signs, etc. detected by deep learning algorithms, and the NCDOT project of Vehicle Traffic Safety uses these detection algorithms.
• Research on implementation of sensor (LiDAR, camera) integration for the SAE project.

Jan 2015- Jan 2018 **Sr. Electrical Engineer** **Stitching Bangladesh Accord Foundation, Bangladesh**
• Inspected around 500 factories that are conducted under the NFPA 70, NFPA 70E, and BS standards.
• Review more than 300 Single Line Diagrams that provide safe machine installation procedures and utility cost minimization.

Jan 2014- Jan 2015 **Sr. Software Engineer** **SAMSUNG R&D Institute Bangladesh Ltd**
• Work with boot loader setup and firmware configuration for Samsung devices that provide a secure environment for the firmware of 50 models of SAMSUNG devices.
• Create bridge binary and Roll-back prevention software for Samsung devices that prevent 3rd party model tempering.

Feb 2013- Jan 2014 **Industrial Surveyor** **Bureau Veritas (Bangladesh) Private Ltd**
• Inspected around 50 factories that are conducted under the NFPA 70, NFPA 70E, and BS standards.

July 2010- Feb 2013 **Project Engineer (Design)** **Peninsula Se-master B2B Project, Bangladesh**
• Developed a low-cost Navigational Light control panel with ATmega 128, and some ships use that as a test basis.

June 2009- June 2010 **Asst. Engineer** **IICT, BUET, Bangladesh**
• Developed prototype for a standalone vending machine with ATmega 128 microcontroller for prepaid electric metering system and published a paper on that work.

AWARDS

• Outstanding presenter at the Next-Generation Transportation Systems-2020.
• Got 2nd prize (Group) of the SAE AutoDrive Challenge in 2019.

PRESENTATIONS

• NCDOT Summit 2020 • IEEE SMC 2020 • NGTSC 2020

PUBLICATIONS

• Connected Autonomous Vehicles: State of Practice. IEEE SMC, 2021. (Under review)
• Pedestrian Detection for Autonomous Cars: Inference Fusion of Deep Neural Networks. ITS, 2021. (Under review)
• Single Shot Pedestrian Detection with Body Parts Semantics, IEEE ITSC,2021. (Under review)
• A Pedestrian Detection and Tracking Framework for Autonomous Cars: Efficient Fusion of Camera and LiDAR Data. IEEE SMC, 2021. (Under review)
• Pedestrian Detection for Autonomous Cars: Occlusion Handling by Classifying Body Parts. IEEE SMC, 2020.