

Shifat Taushif

EDUCATION

University of Michigan-Dearborn

Master of Science in Engineering – Mechanical Engineering

Anticipated: 2023

Wayne State University

Bachelor of Science – Mechanical Engineering

May 2019

Major GPA: 3.42/4.00

TECHNICAL SKILLS

CAD Software: CATIA, SolidWorks, CR5000, UG NX, OnShape, ANSYS, AutoCAD

Engineering Software: MATLAB, Simulink, LabVIEW, Microsoft Visio

Foreign Languages: Japanese, Bengali

PROFESSIONAL EXPERIENCE

Sumitomo Electric Wiring Systems, Inc. (York Township, MI.)

Jun. 2019 - Present

Design Engineer

- Maintained 2D and 3D wire harness design data on Toyota CAD system throughout project phases with CATIA and CR5000.
- Investigated quality and workability problems in Toyota vehicles at customer site and applied effective countermeasures.
- Communicated with Japanese counterparts of both Sumitomo and Toyota and utilized language fluency to negotiate project tasks.

HORIBA Instruments Inc. (Troy, MI.)

May 2017 – Apr. 2019

Engineering Intern

- Prepared 2D and 3D models, system diagrams and rendered images of HORIBA products using SolidWorks for project proposals.
- Performed FEA using SolidWorks to ensure designed custom components meet operation and structural specifications.
- Knowledgeable on vehicle and engine emissions testing according to 40 CFR 1065/1066 using HORIBA MEXA emission analyzers.

Wayne State University (Detroit, MI.)

Student Assistant – BE 1500 Peer Mentor

- Assisted professor with teaching of the Programming and Computations with MATLAB course, graded assignments and proctored exams.
- Held office hours to aid students with homework and assignments and to provide students with tutoring on class topics and materials.

WSU HybridWarriors EcoCAR3 (Detroit, MI.)

Jan. – Sep. 2017

Mechanical Engineering Team Member

- Converted a 2016 Chevrolet Camaro into a Level 2 Autonomous Plug-In Hybrid-Electric Vehicle with a team of 15 peers.
- Designed powertrain components (housings, mounting structures, wire harness, cooling loops) with UG NX.
- Performed assembly, integration and maintenance of vehicle powertrain components, engine, electric motor and battery pack.

Wayne State University (Detroit, MI.)

Jul. – Aug. 2016

Student Assistant – College of Engineering Summer Camp Instructor

- Directed hands-on activities to introduce Detroit Public School students of Grades 5-8 to real life applications of Math and Engineering.
- Held classes of up to 30 students to teach programming and algorithms using Arduino, LEGO Robotics, LittleBits and ALICE.

ACADEMIC PROJECTS

Design and Modeling of Autonomous Vehicle using Simulink

Fall 2018

Wayne State University – ME 4420: Dynamic Modeling and Control of Engineering Systems

- Designed a Level 2 Autonomous Vehicle controller with Simulink utilizing state-flow charts and control loops in a team of 2.
- Developed controls and behaviour trees using Simulink to account for the functional requirements of day-to-day highway driving.
- Utilized MATLAB to generate plots and graphical representations for a driving scenario for the control and independent vehicles.

Aftermarket 360° View Camera System for Passenger Vehicles

Fall 2018

Wayne State University – ME 4500: Mechanical Engineering Design II

- Collaborated with a team of 3 in the design of a \$400 aftermarket 360° view camera system for passenger vehicles.
- Designed custom 3D-printed components with UG NX and used an Arduino controller for interfacing and controls.
- Created APQP documentation (DFMEA, DVP&R) to ensure quality and functionality, and to optimize system function.

Hot Air Purging System for Passenger Vehicle Cabin

Summer 2018

Wayne State University – ME4300: Thermal Fluid Systems Design

- Led a team of 5 in the design of an automated cabin hot air purging system for mid-size passenger vehicles for passenger comfort.
- Used CFD with ANSYS and 3D CAD to design system to maintain interior cabin temperature within 5°F of ambient temperature.
- Maintained APQP documentation, Bill of Materials and Gantt Chart to keep track of project tasks, costs and goals.

CONFERENCE PRESENTATIONS

Synopsis of Automobile Nano-Particle Emissions and Measurement in Bangladesh

August 2016

American Association of Bangladeshi Engineers and Architects – 2016 Conference

- Researched automobile Nano-Particle emissions data and measurement methods in Bangladesh, and historical effect on health.
- Proposed policy of measuring PM emissions in key location and sharing the data over public broadcast systems to raise awareness.
- Presented technical paper and presentation at the 2016 convention in Detroit, MI. to a panel of engineers and policymakers.