

# Mustafa Sheikh

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## SUMMARY

HIL Automation Engineer with six years of professional experience working in a fast-paced corporate environment part of a cross-functional global team. Skilled in gathering requirements to deliver hardware and software solutions for complex problems.

## EDUCATION

### UNIVERSITY OF WINDSOR

#### BSc IN PHYSICS

Oct 2011 | Windsor, ON

Cum. GPA: 85%

Major GPA: 88%

### UNIVERSITY OF WINDSOR

#### BSc IN ELECTRICAL ENGINEERING

Oct 2009 | Windsor, ON

Cum. GPA: 84%

Conc. in Communications with Co-op

## COURSEWORK

### PHYSICS

Quantum Mechanics

Statistical Mechanics

Electromagnetism

### ENGINEERING

Coding and Information Theory

Image and Video Processing

Multimedia Systems

Control Systems Engineering

## SKILLS

### PROGRAMMING

Shell • Python • Matlab

C • C++ • Git • SVN

### ENGINEERING

Simulink • Project Management

Testing • Fixture Design

dSPACE Tools • Smart Motor Control

## EXPERIENCE

### FORD MOTOR COMPANY | LEAD FEATURE EXPERT

June 2018 – Present | Allen Park, MI

- Responsible for testing of Cross Traffic Alert Feature for new vehicles.
- Defined HW boundary and scope of testing while leading off-shore resources to ensure proper testing was completed within scope.

### FORD MOTOR COMPANY | AUTOMATION SOLUTIONS DEVELOPER

January 2015 – Jun 2018 | Dearborn, MI

- Created tool to facilitate manual testing for HIL racks used by +20 people in Python. It increased efficiency and user productivity.
- Researched and proto-typed Appium based Phone Automation solution in Python which was later developed as a full fledged solution by junior engineer who I mentored.
- Adapted, integrated, extended, and maintained Squish based Sync touchscreen automation tool created in Python. Enabled our lab to perform automated testing for features with Sync screen.
- Worked with internal customers and external suppliers to develop and deliver automated locking solution which required Python and part design expertise.

### FORD MOTOR COMPANY | HIL ENGINEER

June 2012 – December 2014 | Dearborn, MI

- Restructured dSPACE license scheme to maximize usage and minimize cost
- Managed and acquired licenses for the whole lab with an operating budget of 125k USD per annum and total value of 1 million USD.
- Lead for global communication group which consisted of with teams from Germany, India, China, Mexico, and Australia
- Successfully performed parts acquisition and BOM validation for all HIL racks for two separate programs simultaneously.
- Worked with suppliers, engineers, Ford purchasers to resolve issues and negotiate timelines and deliverables.
- Lead for Powertrain HIL Subsystem which required coordinating changes and expanding capability using MATLAB and Simulink for modelling or reading schematics to make hardware changes.

## CO-OP AND INTERNSHIPS

### FRAUNHOFER USA | OPTICAL ENGINEERING INTERN

October 2011 – February 2012 | Plymouth, MI

Validated output and spectral characteristics of IR diode lasers. Worked with senior engineers to align laser systems.

### INSTITUTE FOR DIAGNOSTIC IMAGING RESEARCH | SUMMER STUDENT

June 2011 – October 2011 | Windsor, ON

Worked to troubleshoot quality scan noise issue on spot-welding robot that used an ultra-sonic sensor. Designed and executed experiments to isolate problem, using MATLAB to analyze data. Presented findings to director of institute.

### TRQSS | MANUFACTURING ENGINEERING INTERN

May 2006 – August 2007 | Tecumseh, ON

Worked with Industrial Engineers to qualify automation lines. Used Solidworks to create fixtures and jigs in addition to automation solutions for seat-belt manufacturing lines.