

Mustafa Sheikh

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SUMMARY

HIL Automation Engineer with six years of professional experience working in an agile corporate environment. Skilled at gathering requirements to deliver hardware and software solutions for complex problems while collaborating with global teams.

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

Digital Signal 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

July 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 – June 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, and 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 ultra-sonic sensor noise issue on spot-welding robot.

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.