Mustafa Sheikh

Versatile engineer with five-plus years of experience in test automation within the automotive industry. Adept at gathering requirements and delivering automation solutions that expand capability and increase efficiency with minimal supervision. Committed to working as part of a diverse team while fostering a positive, result oriented, and fun attitude.

Skills

* Python 2.x/3.x, C++
* Galil Tools IDE, MOOG Animatics
* Froglogic Squish
* Simulation and Modelling using MATLAB and Simulink/Stateflow
* Mechanical part design using SolidWorks and CATIA
* Data/error analysis and report writing
* dSPACE AutomationDesk, dSPACE ControlDesk
* Visual SVN, Git

Work Experience

HIL Interface and Automation Engineer, Ford Motor Company

Dearborn, Michigan, USA (April 2013 – Present)

Responsible for delivery and design of automation solutions in addition to providing group-wide IT support.

Collaborated in a team of over 20 people including members Onsite (North America) and Offshore (India) as

Version Control (SVN) repository lead. Provided Onsite group with Python scripting support and mentorship

of students in addition to new team members on best practices for creation of automation solutions. Also

had exposure to dSPACE hardware and HIL modelling using Simulink.

Recent Projects:

* + Manual Testing Interface Standardization and Framework:
    - Led a team of engineers to design a set of standard test layouts to increase efficiency of manual testing execution.
    - Created scalable framework using ControlDesk Next Generation and Python to control testing interface based on ease of use and minimal downtime for testers.
  + Appium Based Phone Automator for HIL:
    - Researched and evaluated multiple options for Phone automation for HIL.
    - Created simple proof of concept to prove out strategy.
    - Mentored new team members on Python best practices and guided creation of full solution.
    - Collaborated with Test Engineers and Junior Automation Engineers to assist integration with existing AutomationDesk framework.
  + Squish Based Automated GUI Tester: for Gen 3.0 Sync Module using Python 3.x
    - Independently modified and extended pre-existing code from an off-shore team for local lab’s needs under time pressure.
    - Integrated modified solution into local HIL and AutomationDesk frameworks while keeping pace with early stage software interface changes.
    - Responsible for ongoing support and maintenance of local tool.
    - Provided training and mentorship for other team members for use and maintenance.
  + Universal Robot based Automated HMI Tester: for Infotainment
    - Supplied, gathered, and submitted requirements to vendor.
    - Oversaw design and lead team for commissioning and validation.
    - Integrated solution AutomationDesk by writing and designing “library blocks” and data structures for portability and reuse of solution.
  + Automated Locking Feature Tester: for testing of distributed locking features
    - Designed, modelled, and evaluated parts and assemblies for fixturing using CATIA.
    - Worked closely with other engineers to write and modify smart motor controller code for to better suite the application.

Onsite Project Engineer at Ford Motor Company, EASi Engineering

Dearborn, Michigan, USA (May 2012 – April 2013)

* Involved in ongoing design and maintenance of robotic motion system used for automated testing.
* Used dSPACE Automation Desk to automate testing for vehicle subsystems.
* Utilized Python in order to modify library blocks in dSPACE Automation Desk.

Engineering Intern, Fraunhofer Center for Laser Technology

Plymouth, Michigan, USA (October 2011 – March 2012)

* Assisted Optical Engineer in setting up performance testing.
* Responsible for validation and documentation of laser diode performance.
* Performed basic alignment of laser systems.

Summer Student, Institute for Diagnostic Imaging Research

Windsor, Ontario (Summer 2011)

* Involved in troubleshooting for diagnostic imaging robots.
* Designed and performed tests for transducers and industrial components.
* Analyzed and presented data for supervisors.

Manufacturing Engineering Intern, TRQSS

Tecumseh, Ontario (Summer 2006 – Summer 2007)

* Designed and conducted attribute gauge studies, cavity correlation studies, and capability studies.
* Drafted and designed tooling fixtures using Solidworks CAD software.
* Contacted and dealt with sales representatives for quotes and recommendations regarding optimal sensors for industrial applications.

Education

University of Windsor – Windsor, Ontario (2010-2011)

**BSc Physics and High Technology**

University of Windsor – Windsor, Ontario (2004-2009)

**BASc (Co-op) Electrical Engineering**