Preet Shah

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Skills

Core Languages: Python, C, C++, Matlab, SQL, HTML5, CSS, JavaScript, PHP, VBA

Frameworks: React, AngularJS, BootStrap

Program Management tools: Asana, Gantt Chart, Jira

Familiar with: Github, Linux, AWS, REST API, Agile Software Development Methodologies, SQLite3, Django, Flask

Work Experience

Supply Chain Management Intern - *Formlabs*
May 2019 - Aug 2019

* **Developed SQL scripts** to gather and track data of specific cartridges being used
* Implemented **VBA program to perform statistics** on high volume mass production data and single out discrepancies
* Managed a team of **five people** to successfully validate and test second sourced silicone to **cut costs by 30%**
* Collaborated with engineers and contract manufacturers to receive high quality prototype electronic consumables

Manufacturing Engineering Intern - *Magna International*
Sept 2018 - Dec 2018

* Built VBA program to send notifications to appropriate people when inventory gets low
* Initiated procedure to gather data for **capital redeployment of exiting line** to save Magna **two million dollars**
* Collected and analyzed production line data in Excel to **reduce weekly waste by 20%**

Mechanical Design Engineering Intern - *Linamar - Innovation HUB*
Jan 2018 - Apr 2018

* Responsible for accurately modeling dunnage and guide assembly, within SolidWorks, for precise robot movement
* Implemented DFM/DFA principles to ensure optimization of the manufacturing, cost, and quality of guide assembly
* Utilized RobotStudio to program movements for an ABB IRB2600 robot

Aerodynamics Team Member - *UWaterloo Formula Electric Design Team*
Oct 2016 - Present

* Led project to design, on SolidWorks, and implement a new mounting system for the front and rear wings
* Utilized Star CCM+ to perform CFD analysis on various components of the car to visualize downforce generated

Personal Projects

Stewart Gough Platform - Arduino, C

* Working with **four team members** to design and build a Stewart Gough platform that can navigate a marble through a maze
* Developed an algorithm, based on inverse kinematics, to determine servo angles for a given maze orientation
* Built a robust function that allowed team to obtain servo start and end positions, to an **accuracy of 95%**
* Debugging developed Arduino code to ensure the platform performs exceptionally

24 - Python

* Built a computer game to determine if four given card numbers can total to 24 using only BEDMAS functions
* Implemented data structures, and helper functions to handle various cases
* Debugged code and created test cases to ensure program operates correctly

Personal Website - HTML5, CSS3, JavaScript

* Designed and programmed personal website using multiple front end languages
* Improved understanding of frameworks and web development

NHL Player Performance Tracker - Python

* **Utilizing NHL API** to collect data on current NHL players
* Created simple models to calculate projection of future player performance, based on analysis of previous player data

Education

University of Waterloo - Bachelors of Applied Science, Mechanical Engineering - 3rd Year **Class of 2021**