Fadey E. Rayyan

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Professional Experience

General Motors ***Warren, MI***
Manufacturing Engineer (Rotational Program) *November 2021-Present*

- Collaborated with many engineering disciplines to accurately develop manufacturing processes for the body sides of the Hummer EV/Escalade IQ line, which led the team to be 1 month ahead of schedule
- Managed a group of 15 tradespeople and robot programmers to achieve integration of the new Escalade IQ line
- Achieved High-Performance evaluation, which led to a promotion
- Developed and Deployed a Cost Content Calculator internally to aid in calculating tool design and build financials using Python/Flask
    - Reduced lead time for tool-based financials from 1 month to 1 day

Ford Motor Company ***Dearborn, MI***
SEO Intern *June 2020-August 2020*

- Aided team with RIVAT application to track VINs for Takata airbag recall
- Successfully automated CCPA reporting tool with Alteryx and SQL
- Used JavaScript to extract EXIF metadata from photos to obtain GPS location and presented it using HTML/CSS
    - Verified location of 100s of VINs and increased accuracy of contact for impacted persons which reduces the risk of injuries or death

Project Experience

Insta485 Instagram Clone ***Ann Arbor, MI***
EECS 485 Project *September 2020-December 2020*

- Designed an Instagram clone using a Flask app that contains server-side and client-side dynamic pages as well as static HTML/CSS content
- Used JavaScript and asynchronous programming to invoke remote procedure calls in web user interfaces
- Used JSON for messaging and data exchange in the form of REST APIs

Search Engine Project ***Ann Arbor, MI***
EECS 485 Project *September 2020-December 2020*

- Designed and implemented a pipeline of MapReduce programs to build a web search inverted index using Python
- Used rank search and balanced trade-offs of different auction mechanisms for web ad sales

Traveling Salesperson Project ***Ann Arbor, MI***
EECS 281 Project *September 2019-December 2019*

- Understood and implemented MST algorithms to determine the efficiency of Prim's or Kruskal's in particular scenarios
- Implemented a Branch and Bound algorithm to develop a fast and effective bounding algorithm using C++
- Determined the shortest route for traveling salesperson

Leadership Experience

MPowered Entrepreneurship ***Ann Arbor, MI***
Start-up Highschool Director/VP of Culture *April 2019-May 2021*

- Led 10 individuals to create an outreach campaign to teach students to develop start-up ideas for a pitch competition
- Delegated tasks to talent members to obtain sponsors and had 50 students RSVP (canceled due to Covid-19)
- Created a thriving culture within MPowered by creating Covid friendly events to learn more about each member

Education

University of Michigan-Ann Arbor, MI
B.S.E in Mechanical Engineering
Minor in Computer Science
Minor in Entrepreneurship

Technical Skills

Programming
C++, React, Python (Flask), MATLAB, HTML/CSS JavaScript, SQL, Git, AWS
Mechanical
Lathing, Welding, Milling, 3D Printing, GD&T
Software
SolidWorks**,** Siemens NX**,** Fusion 360**,** ANSYS**,** Microsoft Office**,** Xcode**,** MATLAB Simulink, Alteryx

Relevant Courses

Data Structures and Algorithms
Web Systems
Discrete Mathematics
Design and Manufacturing
Thermodynamics I
Intro to Dynamics and Vibrations
Manufacturing Processes
Fabrication and Prototyping

Languages

English
Arabic

Extracurriculars

MPowered Entrepreneurship
Arabesque: Dance Team
Arab Student Association (ASA)
Michigan Electric Racing (MER)
Formula SAE Racing