Yusef Mostafa

LinkedIn

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EDUCATION

Master of Engineering in Mechanical Engineering, *Georgia Institute of Technology* Aug 2023
Bachelor of Science in Mechanical Engineering, *University of Florida* May 2021
Engineer in Training (EIT) – *Passed FE exam* March 2023
GPA: 3.5/4.0
Technical Skills: SOLIDWORKS, AutoCAD, Catia, MATLAB, C, LabVIEW, Six Sigma (White Belt), Python

WORK EXPERIENCE

R&D Engineering Intern – Leadership Development Program, *Johnson & Johnson* May 2022 – Aug 2022
- Assisted in the development, testing, and launching of an ultrasound catheter device
- Collaborated with sourcing team, and conducted DFMEA risk assessments to make design changes
- Performed design verification and validation testing on prototypes to evaluate reusability of catheter device

Global Battery Manufacturing Engineering Intern, *Tesla* Jan 2022 – April 2022
- Designed and fabricated tooling which decreased cycle time of manufacturing processes by more than 50%
- Designed and manufactured multiple jigs and fixtures to mass produce parts under tight dimensional tolerances
- Oversaw the setup of machinery, including adhesive dispense, pneumatic, robotic, and vision systems

Mechanical Engineering Intern, *Touchpoint Medical* June 2021 – Aug 2021
- Designed custom products for manufacture according to customer needs as a part of the medial device team
- Constructed sheet metal parts and drawings for manufacturing using GD&T and ASME drawing standards
- Created and documented design changes to existing products using change notices and design control software

Research Assistant, *GLaDE Lab* May 2021 – Aug 2021
- Collaborated with others to develop VR model of the University of Florida VetMed utility plant using Unity
- Created functional models from the utility plant of the boiler and cooling rooms using Revit and AutoCAD
- Simulated actual utility plant performance in Unity using thermodynamics and heat transfer theory

Mechanical Engineer Intern, *Undersea Oxygen Clinic* June 2020 – Aug 2020
- Operated systems for monoplace hyperbaric chambers according to ASME pressure vessel safety standards
- Designed vital monitoring system similar to an electrocardiogram for research applications in the chamber

LEADERSHIP

Team Leader, *Integrated Product and Process Design (IPPD) Team* Sep 2020 – May 2021
- Managed a prototyping budget of $2000 to produce a 3D printed chemical reactor for distance learning
- Modeled and fabricated reactor parts using 3D CAD software (OnShape) and a Formlabs SLA 3D printer
- Prototyped and manufactured a PCB using an Arduino, flow sensors, and compatible motors

Design Team Leader, *3D Printing Competition* Jan 2019 – May 2019
- Received 1st place award in university-wide undergraduate and graduate competition
- Prototyped and fabricated a 3D printed exoskeleton to improve grip strength of users with hand disabilities
- Utilized an Arduino kit to program and incorporate electrical components to produce a motorized prototype
- Conducted a cost and functional analysis of exoskeleton and presented design to department chairs

Exoskeleton Video

PROJECTS

Autonomous Robot, *Personal Project* June 2020 – Aug 2020
- Modelled and constructed a robot capable of automated motion, facial recognition, and data collection
- Designed and 3D printed custom sensor brackets and motor mounts using 3D CAD software (SOLIDWORKS)
- Applied a Raspberry Pi with python programming to control cameras, sensors, and DC motors

Forearm Prosthetic, *Generational Relief in Prosthetics (GRIP) Design Team* Aug 2019 – May 2020
- Designed and manufactured an elbow and forearm prosthetic limb for an individual in need
- Utilized 3D CAD software (SOLIDWORKS) to model and 3D print adjustable components
- Awarded member of the month for effort and dedication towards the project success