**UDIT HITESH MEHTA**

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*Jr. Mechanical Engineer*

**SUMMARY**

* Converted 80% of pick & place robot design to 3D models with Solidworks & Solidworks Composer.
* Built an ATV with a team of 25 at BAJA SAE. Represented in material purchase & assembly. Worked on piping profile in fabrication shop. Instrumental in chassis design with weight reduction to 60%.
* Developed novel medical device prototypes with plastics using FDM 3D printing technology.

**EDUCATION**

**The University of Texas at Dallas, Richardson**   **May 2020**

*Master of Science in Mechanical Engineering,* Jonsson Graduate ($12,000+) Scholarship Awardee GPA **3.4**

**University of Mumbai**, *Bachelor of Engineering in Mechanical Engineering* **May 2016**

**WORK EXPERIENCE**

**B Braun Medical Inc. |** *R & D Engineering Intern*(Carrollton, TX)  **May 2019 - May 2020**

* Led product design & development of infusion pump (Class II medical device) -200/250 ml vial clip sizes with proposed cost savings of about $10,000 with 3D printing (FDM) over injection molding.
* Conceptually used Solidworks for 2D detail drafting, 3D Modeling , simulations, hand calculations and analysis, geometric dimensioning and tolerance using design engineering principles.
* Participated with Design, QA team highlighting DFM/DFS/DFA & continuous improvement approach.
* Troubleshooted pumps using root cause analysis and proposed alternative solutions with research.
* Coordinated with suppliers to discuss manufacturing suitability and estimated cost analysis.

**The University of Texas at Dallas |** *Student Assistant* (Richardson, TX)   **Feb 2019 - May 2019**

* Evaluated and analyzed undergraduate student performances for coursework on Design of Mechanical Systems. Graded student assignments, tests and clarified doubts for the subject.

**Ferro Steel Industries |** *Assistant Engineer* (Mumbai, India) **Apr 2017 - Dec 2017**

* Supported plant maintenance. Established 5S with tooling that boosted labor efficiency by 20%.
* Approved AutoCAD drawing & guided machine shop floor with GD&T ASME Y14.5.
* Coordinated contractors with drilling, grinding, cutting, welding machines for sheet metal fabrication.

**Parle Global Technologies Pvt. Ltd. |** *Trainee Engineer* (Mumbai, India) **Aug 2016 - Mar 2017**

* Redesigned assembly on Solidworks of a pharmaceutical bottle capping machine with targeted capacity from 45 bpm to 60 bpm. Utilized a novel mechanism incorporating an elastomer passage.
* Maintained advanced technology portfolio of new systems thereby saving 10% of research time.
* Generated bill of materials & assisted in costing documentation of manufactured components.
* Pivotal in FAT, testing through IQ, OQ, PQ protocols meeting safety and performance parameter.

**RELEVANT SKILLS**

**Subjects**: Biomedical Design Innovation, Design for Six Sigma (DFSS), DMAIC, Rapid Prototyping, Experimental Mechanics, Thermodynamics, Design of Experiments, Mathematics, Manufacturing process.

**Design and Analysis software**: Solidworks **(Certified)**, Auto-CAD, Autodesk Inventor, Autodesk Vault, ProE, Ansys, Abaqus, Simulink, MS Project, MS Powerpoint, MS Vizio, Cura, GOM, Solidworks PDM.

**Programming:** Matlab, Python, C, P&ID (2-D & 3-D Piping Drawings)

**Instruments**: Vernier Calipers, Instron Testing machine, Machining tools, FDM Ultimaker 3D Printer.