ANOSH P WADIA

+1 646-467-1046 http://www.anoshwadia.net/ anoshw2@yahoo.com

Product Development | Project Management | Sheet Metal & Plastic Design | Heat Transfer & Fluid flow | DFM/DFA

Leverage my experience in consumer product design & development, controls & connectivity integration, engineering analysis (CFD, FEA, Tol etc) & project management to develop innovative engineering solutions & products

EDUCATION:

Purdue University **GPA: 4.0/4.0** **May '16**
Master of Business Administration
Delta Mu Delta Honors

Texas A&M University **GPA: 3.8/4.0** **Aug '11**
Master of Science – Mechanical Engineering
Thesis: Developing biomimetic design tools to create innovative products; Passed FE Examination

Texas A&M University **GPA: 3.74/4.0** **Aug '09**
Bachelor of Science – Mechanical Engineering
Magna Cum Laude Honors, Project Management Certificate

WORK EXPERIENCE:

Amazon Web Services Inc – *Senior Mechanical Engineer* **Sep '20 – Present**

- Delivered on multiple projects that have helped data centers run more efficiently, with improved resiliency & with increased power density
- Identified a design improvement that will enable a 1% increase in IT capacity and a 54% reduction in power consumption at existing data centers; which will result in an estimated $207M savings over 5-years
- Implemented an improved filtration solution that led to reduced Operations effort, 13% lower power consumption and an estimated $6M savings over 5 years
- Developed a filter maintenance tool that helps Operations teams to monitor predicted filter life. This visibility improves preparedness for seasonal weather events like dust storms which reduces the risk of failures during such events
- Led the mechanical and thermal design for a new power shelf platform for racks. The new platform provides 40% higher output power within the same footprint, enables interoperability of multiple modules within the same chassis and optimizes airflow usage based on load conditions

Acuity Brands Inc – *Senior Design Engineer* **Aug '18 – Sep '20**

- Led & managed cross-functional teams through product development projects from concept through production
- Leveraged FEA tools, materials analysis & vibration testing to identity changes that improved the designs of 4 different structural support arms to meet **3G vibration requirements (initial 1G rating) in an expedited 3 month timeline** including die-cast tool changes. Designed novel **sheet metal structural support to distribute loads from weaker areas of the enclosure casting to stronger areas** resulting in a solution with **no tooling change (saving cost & time)**
- Developed a new heat sink design that **increased heat dissipation by 50% within the same footprint**, resulting in a 150% increase in lumen output of light fixture
- Created die-cast enclosure designs to package electronics & ensure effective thermal management while also meeting IP66 sealing requirements; Designed a unique gasketing **solution with mechanical stops to seal along a curved interface**
- Integrated optics, LEDs & structural components with precision to meet lighting, aesthetic & structural needs; Leveraged gasket materials & mechanical features to minimize tolerance effects & maintain precise optic locations during assembly
- Designed components with multipurpose features to ensure ease-of-manufacturing, saving material costs & cycle time
- Created innovative product designs with high-quality aesthetics using experience with castings, injection molding, extrusions, sheet metal fabrication, gasketing & electronics packaging
- Led the effort to create a standard work (SOP) for "Analysis based design" ensuring future designs leverage engineering tools like FEA to avoid costly re-designs and delays during testing & validation phases

Weil-McLain (SPX Corporation) – *Mechanical Design Engineer 2* **Sept '13 – Aug '18**

- Managed cross-functional teams to design innovative consumer heating products & components; **2 patents**
- Developed a new heat exchanger design using research data from PCB heat-stinks; The new design attained a **25% physical size reduction & material cost savings**
- Designed new product enclosures using plastic snap-fits & metal extrusions for 6 different product lines that led to a **10% reduction in manufacturing cycle time, ~40% reduction in field installation time** and improved aesthetics

- Led the development of a new grille design starting with multiple industrial design concepts & quickly narrowed down using heat transfer & fluid flow analysis (CFD) and FEA studies. Interfaced with suppliers & manufacturing team to ensure design-for-manufacturability (DFM) while also maintaining the aesthetically pleasing & functional product needs
- Led the design & construction of a configurable testing chamber inside a Cold Room to effectively test heating products of various types in multiple simulated applications & environmental conditions
- Developed business case & acquired company's first 3D printer helping to **expedite product development timelines by 15%**; The success of the initial investment led to acquiring an additional printer for more accurate & functional prints
- Led the development of a new modular board (PCB) design that could replace electro-mechanical control components on over 30 product lines while maintaining existing features & adding new energy saving & ease-of-use features

Ingersoll Rand-Trane Residential Solutions – *Product Developer Engineer* **Jan '13 – Sept '13**

- Designed innovative heat exchanger features leading to **20% increase in heat transfer coefficient** & a smaller heat exchanger with cost savings
- **Airflow Subsystem Leader**: Planned & executed the design & development of gas furnace platform's airflow subsystem
- Minimized development testing time by creating a simulation tool using excel to evaluate airflow performance of multiple blower-heat exchanger combinations using baseline test data & airflow equations
- Leveraged CFD to optimize blower placement inside the furnace cabinet for optimized airflow & heat transfer
- Developed innovative design solutions: Inventor on **3 patents**; 2 designs under internal patent review
- Managed CTQ analysis, product design, risk analysis & testing for multiple HVAC product updates.

Ingersoll Rand-Trane Residential Solutions – *Design Engineer* **Aug '11 – Jan '13**

- Managed the design, optimization and testing for evaporator coils, sheet metal cabinets, air-conditioner components, fans, electronic control housings, and plastic/composite components
- Led 3D modeling & prototyping of critical component redesigns for productivity and reliability projects
- Managed entire product life cycle of two new furnace product lines launched within an accelerated three-month timeline using Pro/Engineer and Windchill/PDMLink; **Received Chairman's Award**.

SKILLS:

Software Proficiency: Pro|Engineer, Autodesk Simulation CFD, Windchill PDMLink, Solid Works, AutoCad, Inventor, C++, MatLab, Maple, MAPICS & LabView

Engineering Abilities: Electro-mechanical Consumer Prod Development, Stage Gate Process, Engg analysis & testing, Root cause analysis, Extrusions & Castings, FEA, CFD, DFM, Sound testing, Basic machining

LEADERSHIP:

Toastmasters Leadership Program – AccuToast, IR-Trane **2010-2013**

- Improved speaking, listening, and thinking skills to enhance individual growth

Organizing Committee Member – Aggie International Ambassadors, TAMU **2009-2010**

- Planned and organized events to promote awareness of various global and cultural issues

Vice President – American Society of Mechanical Engineers, TAMU Chapter **2007-2009**

- Planned and organized National Leadership Conference events
- Collaborated with industry representatives to further the growth of the student organization

AWARDS AND HONORS:

Patents, 5 Awarded & 2 under internal review
Business Strategy Game, Industry Champion, May 2016
Delta Mu Delta, Business Honor Society, Purdue University, March 2016
Ingersoll Rand Chairman's Award for 2012, Growth & Innovation, Ingersoll Rand, 2012
President's Award, Growth & Innovation, Ingersoll Rand, 1st Quarter 2012
Dean's Honor Award, Texas A&M University, Spring 08 and Spring 07
Tau Beta Pi, National Engineering Honor Society, Texas A&M Chapter, Summer 08
Pi Tau Sigma, Mechanical Engineering Honor Society, Texas A&M Chapter, Spring 07

VOLUNTEER WORK:

Housing Opportunities, 2015 **|** Habitat for Humanity, 2013 **|** Tyler Food Bank, 2011 **|** Big Event, 2007 & 2008