Yatish Mullaji

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- Strong application skills in SolidWorks, Fusion 360, AutoCAD, ANYSYS WB, IcePak. Basic programming skills in C++ and Arduino IDE.
- Extensive experience in concept generation, 3D modeling, prototyping, analysis, DFMA and MS office applications.
- Ability to work through and oversee the entire project lifecycle including ideation, research, design, and implementation
- Effective teamwork, resulting into excellent organization and interpersonal skills, and the capability to be a team leader
- Ability to solve problems using an intuitive and creative approach

PROFESSIONAL EXPERIENCE

Freelance Product Designer (Subject Matter Expert), Rakr Inc. **December 2018 – Present**

- Defining scope of work of the product & cost estimation for the concept generation to production
- Working with the team of software engineers and identifying the requirements of the new hardware, its functionality and determining the specification
- Conduct market research, concept generation and system integration
- Develop proof of concept of the hardware that generates the sensor data to be used in machine learning application
- Streamline the hardware design process: create project plan & deliverables, determining resources & set timeline and create test plans & approach to project
- Access various manufacturing techniques and manufacturers for prototyping, small batch production and mass production

Mechanical Design Engineer, Piddi Design Inc. **August 2018 – May 2019**

- Distilling requirements and renderings from client into design for millwork structure
- Compliance with the customer's guidelines in an ever-changing work environment.
- Coordinating with project managers, installers and management to plan the most economic and efficient approach to project
- Crafting detailed production drawing for the in house production facility and the outside vendors and prepare detailed BOMs for the structures and prepare installation drawings
- Conduct design reviews and Develop and maintain parts library

Mechanical Design Engineer, McRae Imaging Inc. **August 2016 – July 2018**

- Designed a wide range of structures, varying sizes and complexities keeping budgetary constraints in to consideration
- Worked with multidisciplinary teams (in house and at client side) for cost estimation and to determine approach to project
- Established mechanical solution in the design ascertaining manufacturing constrains and analyze process to reduce complexity
- Upon design, modeled the design using SolidWorks, prepared BOM and generated detailed (design) production drawing
- Examined manufactured parts and assemblies for QA and to implemented continues improvement
- Communicated with other departments and drive project from concept to delivery in due time
- Prepared design report and assembly instructions for the end client(s)

Freelance Product Designer (Product Owner) (Dog Leash with lock system) December 2014 – October 2018

- Integrated Customer's requirements, converted them into target specification to determine the purpose of the product and developed product from client's imagination to marketable product
- Generated proof of concept prototypes and mockups of the product and drove product to process of obtaining patent
- Determined the application of the product by conducting research and development and engineered robust product which is aesthetically appealing for the target customers
- Developed a brand based product family and generated detailed design drawing with GD & T of components for manufacturing
- Evaluated detailed design of the components and mechanism of the assembly to identify opportunities to reduce complexity and increase productivity and value
- Developed manufacturing plan based on COGS (cost of goods sold) predictions and budgetary constraints and set realistic goals for future targets
- Coordinated with various manufacturers from different countries to access the resources & design processes to carry out manufacturing and initiate RFQs
- Reiterated product design based on feedback from the & CNC manufacturers to reduce cost and improve productivity
- Coordinated with other teams to ensure all the deliverables met their deadlines
- Performed a key role in the full product development cycle – from concept to market

Design Technician, Telecon Design Inc, Markham, Canada **June 2014 – August 2016**

- Performed Detailed Pole loading Calculations.
- Corresponded with Clients, Engineers, Project Manager, Surveyors and construction Managers to achieve deliverables of the project in due time.
- Developed, created and recommended alternatives solutions for proposed design to provide cost effective solutions**.**
- Generated CAD drawings from concept to final design; draw to scale for construction requirements.
- Developed new innovative methods to improve the quality of the company's drawings and the drawing process

CFD, Thermal and FEA structural analyst, TDMG Inc, Montreal, Canada **November 2013 – June 2014**

- Designed and Developed Products for client as per their specifications
- Revamped existing deign to execute analysis
- Performed FEA analysis on several structural elements using Ansys WB and SolidWorks simulation
- Performed CFD analysis on turbine blade using Ansys Fluent and CFDesign
- Tested electrical consoles on IcePak and performed thermal analysis
- Prepared detailed Design report and communicated with client and improved design
- Software used: SolidWorks, Ansys WB, IcePak, CFDesign and so on

EDUCATION

Masters of Engineering (Mechanical) (GPA: 3.83/4.3)

Concordia University, Montreal, Quebec **May 2012 – April 2014**

Bachelor of Engineering (Mechanical)

Canara Engineering College**,** Visvesvaraya Technological University, Karnataka, India **September 2007-2011**

ORGANIZATIONAL INVOLVEMENT

Aerodynamics Designer, SAE Aero Design (UAV) **July 2013 – April 2014**

- Assessed and analyzed all import mission requirements and identified the constraints relevant to the aircraft design
- Performed CFD Analysis on ANSYS Fluent to find out airfoil characteristics, FEA Analysis on landing gears and performed fall test of the assembly
- Designed essential components of the aircraft such as wings, tail arm, elevators, and fuselages
- Optimized the performance of the aircraft by parametric studies and designed parts and parts assemblies in SolidWorks
- Assembled the UAV and was the part of crew, attending the competition

Team Leader (design and assembly), **Formula EHI (SAE)** **August 2009 – December 2010**

Design, construction and assembly of a hybrid vehicle

- Designed as, rear wheels powered by 150cc engine and front wheels 250W hub motors. The dynamo and switching system was provided for charging and choosing the power source.
- Constructed a Chassis using MS pipes and GI sheets were used for the body work; The hub motors were powered by a 48V four cell battery array
- Assembled and tested a four wheeled parallel type hybrid vehicle successfully

HOBBIES AND INTERESTS

Soccer, Video games, Cooking, Travelling, Mountaineering, Listening to music