

Abdul Altiti

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Summary of Qualifications

- Experienced validation engineer, project manager, and product engineer.
- Skilled in test method validations, numerical analysis, technical writing and in mechanical designing and analysis using PTC Creo, ANSYS and 3D printing.
- Effectively leading and working alongside cross-functional teams to research, design and deliver quality products within a time and budgetary constraint.
- Hands-on experience in design modelling and rapid prototyping, data analysis, simulations and materials testing

Education

University of Wisconsin – Madison

- *Master of Science in Mechanical Engineering* May 2021
- *Bachelor of Science in Engineering Mechanics & Astronautic* May 2020
- *Certificate in Computer Science* May 2020

Experience

Cook Medical, Bloomington – Indiana – USA

Feb 2022-Present

Validation Engineer

- Reviewed and developed test method instructions to meet ISO and internal requirements.
- Developed engineering study for improving a foreign matter test method to reduce nonconformance and inspection time.
- Revised product documents to improve clarity and reflect historical practices.
- Developed instructions for utilizing Product Lifecycle Management software and internal databases to determine affected products and documents associated with a Test Method Validation project.
- Working with DFMEA and DVP&R processes to determine as well as implement best course of validation activities.
- Developing FAT, IQ, OQ, and PQ protocols for product and equipment validation for successful implementation.
- Actively participating on cross-functional project teams to develop and verify manufacturing processes and ensure quality.

CleanSat, UW Madison – Madison – WI – USA

Jan 2020-May 2020

Student Engineer

- Tasked with designing a satellite that deorbits Zenit rocket bodies in Low Earth Orbit (LEO). Researched and designed the debris attachment system and structural frame of the sweeper satellites.
- Generated a MATLAB script to optimize the structural frame reducing the mass of the structure by 20% from the initial design while maintaining roughly the original strength.
- Produced finite element models to pinpoint structural weaknesses of the frame during the launch phase

AlarmBot, UW Madison – Madison – WI – USA

Sep 2020-Dec 2020

Student Engineer

- Designed and assembled a security patrol mobile robot that detects for unauthorized intruders within a specified area
- Generated image processing code for real time object detection and further optimized to improve framerates of live video feed by ~40%
- Generated technical documentation and manual on how to utilize the AlarmBot for the average person

Wearable Bicycle, UW Madison – Madison – WI – USA

Sep 2019-Dec 2019

Student Engineer

- Led a full engineering product cycle from concept to prototype of a foldable tricycle which was presented the prototype at the UW Engineering Expo
- Generated FMEA report identifying all possible modes of failure and verified major possible concerns with FEA
- Generated finite element models of the custom hinge members using ANSYS analyzing the stresses under cyclic loads. Data was used to refine the design. Later manufactured the hinge member out of sheet metal by using a waterjet.
- Manufactured full scale prototype to demonstrate proof of concept utilizing various manufacturing techniques. Later performed testing on the prototype.

Skills

Software: Minitab, SolidWorks, PTC Creo, MATLAB, ANSYS, C++, Python, Microsoft Office Suite

Machining: Lathe/Mill Operation, 3D Printing, Laser Cutting, Drill Press Operation, Welding, GD&T