

Aditya Foley

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SUMMARY

Mechanical engineer with over 5 years of experience in product design and engineering, especially skilled in 3D CAD modeling and prototype development. Proven ability to collaborate effectively with cross-functional teams, particularly in the automotive sector. Expertise in application of advanced engineering techniques like injection molding and aluminum fabrication enhances product functionality and efficiency. Consistently delivers high-quality designs that meet strict safety and performance standards. Committed to leveraging innovative solutions to improve processes across all phases of product development.

EXPERIENCE

Mechanical Engineer

January 2023 - Present

Innovative Design Solutions

Chicago, IL

Serves as the lead mechanical engineer focused on designing cutting-edge automotive components using advanced 3D CAD techniques. Collaborates with diverse manufacturing teams, ensuring designs are feasible while keeping efficiency in mind.

- Spearhead design initiatives for new automotive components incorporating functional requirements and aesthetic values.
- Engage actively with production teams to evaluate manufacturability, often modifying workflows for optimal results.
- Supervise prototype development, executing tests that ensure products align with safety and performance benchmarks.
- Fully analyze testing results, refining engineering designs for improved reliability and user satisfaction.
- Conduct comprehensive competitor analysis quarterly, shaping strategies for superior product market positioning.
- Compile detailed project reports that facilitate transparency around cost estimates, resource needs, and timelines.

Mechanical Designer

June 2019 - December 2022

Creative Engineering Group

Peoria, IL

Designed and engineered consumer products focusing on maximizing both user experience and manufacturability in an innovative team environment.

- Engineered consumer-friendly products by utilizing Solidworks for intricate part modeling and assembly workflows.
- Collaborated with fabrication teams to address real-time design challenges during production runs.
- Contributed to enhancing custom training sessions for tools and software, significantly bolstering team efficiency.
- Regularly updated progress and strategic plans in weekly meetings, fostering transparent communication within the group.
- Assured substantive documentation adhering to industry standards kept each project organized and compliant.
- Participated in brainstorming sessions aimed at identifying unmet needs in the market for upcoming projects.

Junior Mechanical Engineer

May 2016 - May 2019

Engineering Innovations Inc.

Naperville, IL

Supported senior-level engineers in various mechanical design tasks focusing on precise execution and detailed documentation.

- Aided in the research and integration of new materials into development projects, enhancing overall product viability.
- Drafted technical reports and presentations tailored for stakeholder review, facilitating decision-making processes.
- Contributed to design of complex components through continuous learning about modern CAD methodologies and practices.
- Drove engagement in teamwork exercises, which cultivated a collaborative environment focused on troubleshooting and innovation.
- Ensured compliance with safety regulations through maintenance of a clean, organized workspace in laboratory settings.
- Participated intensively in feedback loops regarding current prototypes, allowing designs to benefit from collective insights.

LEADERSHIP & AWARDS

- Certified SolidWorks Professional (CSWP) - 2022
- Six Sigma Green Belt - 2021

EDUCATION

Bachelor's Degree in Mechanical Engineering

2016

University of Illinois GPA: 3.5

Urbana-Champaign, IL

Coursework: Thermodynamics, Fluid Mechanics, Material Science, Structural Analysis

CERTIFICATIONS

- Certified SolidWorks Professional (CSWP) 📅 2022
- Six Sigma Green Belt 📅 2021

TECHNICAL SKILLS

- **CAD Software:** SolidWorks, UG NX, AutoCAD
- **Prototyping Tools:** CNC Machining, 3D Printing, Injection Molding
- **Analysis Tools:** MATLAB, ANSYS, COMSOL Multiphysics
- **Project Management Software:** JIRA, Trello, Asana
- **Quality Control Methods:** FMEA, SPC, Lean Six Sigma
- **Manufacturing Techniques:** CNC Machining, Sheet Metal Stamping, Additive Manufacturing
- **Collaboration Tools:** Slack, Microsoft Teams, Zoom
- **Testing Equipment:** Load Testing, Pressure Testing, Thermal Imaging
- **Technical Documentation:** GD&T, ISO 9001, ASME Y14.5
- **Research Methodologies:** Market Research, Competitor Analysis, User Testing

SKILLS

- 3D CAD (Solidworks)
- 3D CAD (UG NX)
- Prototype Development
- Injection Molding
- Cost Estimation
- Product Testing & Evaluation
- Strong Communication Skills
- Aluminum Fabrication
- Plastic Extrusions
- Thermoforming
- Sheet Metal Stamping
- Mechatronics
- Material Selection
- CFD Simulation
- Design Standards Compliance
- R&D Processes

PROFESSIONAL AFFILIATIONS

- Member, American Society of Mechanical Engineers (ASME)
- Volunteer, Society of Automotive Engineers (SAE), National Chapter

LANGUAGES

- English (Native)
- Spanish (Intermediate)

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST