Nisha Fields

Automotive CAD Designer

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STRENGTHS

Design Proficiency
Transformed theoretical concepts into practical 3D designs, refining numerous automotive components swiftly.

Collaboration
Fostered productive teamwork environments, peers regularly consulted for strategic problem solving,

Manufacturing Insight
Gained respect among colleagues for insights on mold design feasibility, directly influencing production methods and materials,

Technical Documentation Mastery
Created comprehensive manuals that improved design clarity and manufactured consistency, gaining executive confidence,

Regulatory Awareness
Demonstrated a keen understanding of automotive compliance requirements, positively impacting project timelines,

SKILLS

CATIA V5 | GD&T | Product Lifecycle Management | Design for Manufacturing | 3D Modeling | Technical Documentation | Mechanical Design | Regression Testing | Field Tests | Cross-functional Collaboration | Injection Molding | Project Coordination | Aesthetic Integration

SUMMARY

Detail-oriented CAD Designer with over 5 years of experience in automotive mechanical design, specializing in exterior mirror assemblies and vision systems. Proficient in CATIA V5 and well-versed in manufacturing processes such as plastic injection molding and die-casting. Strong analytical skills paired with a collaborative approach ensure designs meet regulatory standards and customer specifications while balancing aesthetics and functionality. Committed to delivering high-quality designs that enhance vehicle safety and performance, contributing proactively to project goals and stakeholder satisfaction.

EXPERIENCE

Automotive CAD Designer

Innovative Automotive Solutions | June 2021 - Present | Detroit, MI

Lead designer managing the digital development of complex 3D models for advanced exterior mirror assemblies and vision systems. Engage cross-functional teams for seamless integration across design elements, focusing on quality and compliance with automotive regulations.

- Created intricate 3D and surface models, optimizing external components for aerodynamics and safety enhancements.
- Collaborated closely with engineering teams to implement innovative camera and sensor technologies, ensuring global standard adherence.
- Conducted rigorous tolerance stack-up analyses applying GD&T principles, guaranteeing component integrity and assembly precision.
- Developed Class-A surfaces enhancing the aesthetic appeal while maintaining functional robustness of mechanical components.
- Prepared detailed technical documentation including comprehensive 2D drawings supporting manufacturing workflows.
- Facilitated review meetings presenting design concepts, aligning stakeholder visions with operational capabilities.

Mechanical Design Engineer

Advanced Engineering Corp | April 2018 - May 2021 | Cleveland, OH

Designed and developed automotive components focusing on trim parts and lighting systems. Collaborated effectively within multifaceted teams to push design innovations while achieving manufacturability and cost management.

- Directed design iterations based on DFM assessments during product lifecycle, streamlining production efficiency.
- Worked cross-departmentally to tackle design issues promptly ensuring continuity in programming schedules.
- Utilized PLM tools to oversee design modifications and engineering change control throughout active projects.
- Conducted thorough field tests assessing actual performance against demanding regulatory benchmarks.
- Engaged stakeholders during reviews enhancing the collaborative determination of project specifications.

Junior CAD Engineer

Engineering Innovations LLC | January 2016 - March 2018 | Atlanta, GA

Supported senior engineering staff in developing interpretive 3D models and drawings for automotive applications. Engaged in constructive collaboration improving product viability through applied research and testing.

- Assisted in drafting precise 3D models consolidating industry best practices in design principles and software.

Data Management

Tolerance Stack-Up

LANGUAGES

English — Native

Spanish — Intermediate

MY CAREER

- Automotive CAD Designer at Innovative Automotive Solutions (5.2 Years)
- Mechanical Design Engineer at Advanced Engineering Corp (3.1 Years)
- Junior CAD Engineer at Engineering Innovations LLC (2.2 Years)

- Researched material characteristics and processing techniques vital for sound decision-making regarding designs.
- Partnered with experienced engineers implementing feedback into functionalities that addressed regulatory guidelines.
- Participated actively in weekly sprint sessions discussing evolving challenges in workshops dedicated to solving design hurdles.
- Documented procedural methodologies and design specifications elevating knowledge retention for future use.

LEADERSHIP & AWARDS

- Received Employee of the Month award for outstanding contributions in design accuracy and team collaboration at Innovative Automotive Solutions.
- Recognized by Advanced Engineering Corp for exceptional innovation in component design, enhancing product line value.

EDUCATION

Associate of Applied Science in CAD/Design

City College of Technology GPA: 3.6 2016 New York, NY

Coursework: *3D Modeling, Technical Drawing, Design Software, Mechanical Engineering*

CERTIFICATIONS

- CAD Software Certification - CATIA V5 2025
- GD&T Professional Certification 2024

TECHNICAL SKILLS

- **CAD Software:** CATIA V5, AutoCAD, SolidWorks
- **Manufacturer Collaboration Tools:** PLM, FEA, DFM
- **Design Standards:** ASME Y14.5, FMVSS 111, ECE R46
- **Electrical Components:** Blind Spot Monitoring, Heated Glass Elements, Power-Folding Actuators
- **3D Modeling Techniques:** Surface Model Creation, Assembly Optimization, Component Design
- **Assembly Processes:** Injection Molding, Die Casting, Assembly Workflow Design
- **Documentation Tools:** GD&T, 2D Drawings, Technical Manuals
- **Testing Methods:** Field Test Analysis, Compliance Validation, Performance Testing
- **Design Review Practices:** Stakeholder Engagement, Feedback Interpretation, Cross-Departmental Reviews
- **Material Properties & Selection:** Thermal Conductivity, Tensile Strength, Durability Testing

PROFESSIONAL AFFILIATIONS

- Member of the Society of Automotive Engineers, actively participating in workshops and professional development gatherings.
- Volunteer mentor for STEM programs aimed at inspiring youth interest in engineering and technology fields.

ADDITIONAL INFORMATION

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

REFERENCES

AVAILABLE ON REQUEST