SUDARSAN SRINIVASAN

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SUMMARY

Mechanical Design Engineer with 3.5+ years in high-volume automotive product development, specializing in CAD, GD&T, prototyping, and FEA. Experienced in root cause analysis, failure investigation, and process refinement to enhance performance and quality. Strong problem-solving mindset with attention to detail and cross-functional collaboration to drive engineering solutions.

EDUCATION

University of Washington, Seattle **Sep 2024 - Aug 2026**
Master of Science, Mechanical Engineering (GPA: 3.93) *Washington, United States*

National Institute of Technology, Trichy **Jun 2016 - Jun 2020**
Bachelor of Technology, Mechanical Engineering (GPA: 3.3) *Tamil Nadu, India*

WORK EXPERIENCE

The Boring Company | *Integration Engineering Intern* **Sep 2025 - Present**

- Coordinate with cross-functional teams to resolve integration challenges and enable smooth builds
- Identify and execute critical-path items in schedules, accelerating timelines and de-risking bottlenecks
- Track deliverables, prepare documentation, and ensure timely milestone handoffs

Bajaj Auto Limited | *Mechanical Design Engineer* **Jan 2021 - Jul 2024**

- Led design and development of aluminum castings, plastic covers, sheet metal brackets, and gaskets for ICE and EV platforms, adhering to regulatory norms, styling, DFMEA, and production feasibility for high-volume production
- Developed detailed 3D CAD models and 2D drawings with GD&T using Siemens NX (Unigraphics), ensuring tight tolerance control and manufacturability; managed product lifecycle using Siemens Teamcenter
- Conducted 20+ FEA simulations using ANSYS to optimize structural and sealing performance, reinforcing design integrity
- Automated gasket CAD modeling and validation using NXOpen scripts, reducing design cycle time by 76%
- Achieved $15,000+ annual cost savings by initiating VAVE projects through material and design optimizations
- Collaborated with validation teams to confirm structural, thermal, and fatigue performance pre-production, ensuring product reliability and safety
- Conducted root cause analysis for 100+ issues, including in-house field failures, collaborating with quality, testing, and supply chain teams to implement corrective actions and enhance quality

Ashok Leyland | *Manufacturing Engineering Intern* **Jun 2019 - Jul 2019**

- Revised SOPs for 20+ engine assembly stages to meet new emission standards, improving documentation clarity
- Investigated ABS defect trends in 150+ vehicles using Pareto analysis, identifying sensor integration issues and recommending early-stage testing in the assembly line to increase pass rates

Rane - TRW Steering Systems | *Manufacturing Engineering Intern* **Jun 2018 - Jul 2018**

- Streamlined the drop-arm painting process by eliminating non-value-adding activities, enhancing throughput through Lean Manufacturing principles and process optimization
- Designed and implemented a specialized oven trolley using SolidWorks, increasing production output by 61% per shift

TECHNICAL SKILLS

- **CAD & Simulation:** Siemens NX, SolidWorks, CATIA V5, AutoCAD, ANSYS Mechanical, HyperWorks
- **Design & Manufacturing:** GD&T, Tolerance Analysis, DFM/DFA, 3D modeling, DFMEA
- **Fabrication:** Machining, 3D Printing (FDM), Prototyping, Die casting, Injection molding
- **Programming, Automation & Analysis:** MATLAB, Simulink, Python, C++
- **Software & Collaboration:** Siemens Teamcenter PLM, Microsoft Office Suite

PROJECTS

Autonomous Cleaning Robot – Mechanical Subsystem Design **Jan 2025 - Present**
Boeing Advanced Research Collaboration @ UW *Seattle, WA*

- Led the mechanical design, prototyping, and integration of electromechanical subsystems, sensor mounts, and enclosures using SolidWorks
- Performed material selection and structural validation using hand calculations and ANSYS; collaborated with electrical and software teams to iterate designs, accelerating subsystem readiness for field testing and enhancing overall project timelines

CERTIFICATIONS

- Certified SolidWorks Professional (CSWP)