

# Prabdeep Singh Ghatora

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## EDUCATION

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<b>The University of Texas at Dallas</b>	August 2024 – May 2026
Master of Science in Mechanical Engineering (Manufacturing & Design Innovation)	GPA: 3.6/4.0
<b>Gujarat Technological University</b>	June 2019 – May 2023
Bachelor of Engineering in Mechatronics Engineering	GPA: 3.5/4.0

## EXPERIENCE

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<b>ANG Enterprise</b>	June 2023 – July 2024
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### Mechanical Engineer

- Designed 12 industrial machinery systems with 8-person shop team achieving 96% first-time assembly.
- Created 35+ GD&T CAD models reducing fit-up issues by 75% and eliminating \$10K in rework costs.
- Coordinated with 6 machinists and 4 vendors resolving 22 fit issues, maintaining  $\pm 5$  day schedules.
- Identified 15 alignment issues during builds using tolerance analysis reducing assembly time by 30%.
- Supported installation of 8 systems troubleshooting 18 issues, reducing site downtime from 72 to 16 hrs.

### L&T Technology Services

February 2023 – May 2023

### Design & Robotics Intern

- Designed 5 robotic architectures with simulation reducing physical testing by 60% and saving 4 weeks.
- Conducted kinematic simulations on 12 assemblies resolving 27 conflicts, preventing \$15K in rework.
- Led 8 design reviews applying DFM reducing part count by 40% and standardizing 85% of fasteners.

### ANG Enterprise

September 2022 – January 2023

### Engineering Intern

- Designed 12 CNC fixtures improving repeatability to  $\pm 0.002$ " and increasing throughput by 15% (24 to 28).
- Verified 200+ components against GD&T drawings achieving 85% first-pass acceptance rate.
- Developed CAM and inspection documentation standardizing workflows, reducing training 5 to 3 days.

### Ward Wizard Innovations & Mobility Ltd

June 2022 – August 2022

### Summer Intern – Electric Vehicles

- Designed 6 EV assemblies supporting \$500K in prototype achieving 95% design reuse in production.
- Validated battery enclosure using Abaqus FEA ensuring  $< 2$ mm deflection and  $15^{\circ}\text{C}$  thermal limits.
- Implemented 14 ECOs via ERP improving documentation accuracy from 87% to 92%, reducing errors 80%.

## PROJECTS

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### HexaPod – 6-Legged Robot

- Designed 18-servo mechanism achieving  $\pm 5$ mm positional accuracy across 500mm workspace.
- Performed FEA and FMEA on 24 components increasing predicted MTBF from 200 to 800 hours.
- Created assembly documentation (120 parts) enabling 4-hour repeatable builds with zero fit issues.

### Autonomous Agriculture Mobile

- Designed welded chassis applying DFM reducing weld joints by 58% and fabrication time by 45%.
- Optimized layout improving torsional rigidity by 35% via FEA while reducing weight by 12% (45 to 40kg).
- Conducted 40+ hours field testing implementing 9 improvements, increasing reliability from 78% to 94%.

## TECHNICAL SKILLS

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<b>CAD / Simulation:</b>	SolidWorks, AutoCAD, PTC Creo, Siemens NX, GD&T (ASME Y14.5)
<b>Engineering Analysis:</b>	ANSYS, Abaqus, FEA (Structural/Thermal), CFD, FMEA, Root Cause Analysis, DOE
<b>Product Development:</b>	BOM Management, ECO/ECN, Vendor Coordination, Technical Documentation
<b>Manufacturing:</b>	Machining, Welding, DFM/DFA, ERP Systems, CAM Software, CNC Basics, ISO 9001

## AWARDS & ACHIEVEMENTS

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- UTD Jonsson School Dean's Scholarship – Top 10% academic performance in ME graduate program.
  - National Robotics Competition Winner – 1st Place (\$30,000), led mechanical design and systems integration.