

ACADEMIC QUALIFICATION

<ul style="list-style-type: none"> University of Washington Master of Science in Aeronautics & Astronautics Sant Longowal Institute of Engineering [SLIET] Bachelor of Engineering - Mechanical Engineering (Hons); GPA: 9.26/10 	Seattle, United States <i>Sep 2024 - Jun 2026</i> Punjab, India <i>Jul 2018 - Jun 2022</i>
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SKILLS & INTERESTS

- Technical:** MATLAB, ANSYS, SolidWorks, MSC Adams, C++, Python, FMEA, DFA, MS Office Suite
- Soft:** Innovation, Performance, Transparency, Quality, Adaptability, Agility, Positive, Change, Public Speaking
- Interests:** Additive Manufacturing, Numerical Simulations, Process Optimization, Lean Manufacturing

WORK EXPERIENCE

Mahindra & Mahindra Ltd., Chandigarh	Assistant Manager	<i>Aug 2023 – Mar 2024</i>
<ul style="list-style-type: none"> Implemented new products and processes, enhancing production readiness within the manufacturing environment Conducted Design for Assembly (DFA), optimizing processes to improve efficiency and reduce assembly time Developed and optimized production processes, including process routing, design, and manufacturability studies Reduced waste and improved productivity by implementing lean techniques to address non-value-added activities Performed manufacturing engineering activities such as PFMEA, control plans, inspection plans, and standard work, improving overall production quality and reliability 		
Mahindra & Mahindra Ltd., Chandigarh	Graduate Trainee	<i>Aug 2022 – Aug 2023</i>
<ul style="list-style-type: none"> Ensured production of tractor castings by overseeing production planning, scheduling, and manpower handling Utilized lean tools such as 5S, Kaizen and Jishu Hozen to streamline operations and enhance workflow Developed and maintained visual management charts to show production status and performance metrics Implemented daily work management practices to ensure consistent monitoring and improvement of operations Boosted production consistency by collaborating with maintenance to address limitations and implement solutions 		
Vehicle R&D Establishment (VRDE), Ahmednagar	Intern	<i>Feb 2022 – June 2022</i>
<ul style="list-style-type: none"> Performed crucial numerical calculations to design a compact heat exchanger for a combat vehicle's power pack Emphasized reduction of thermal signatures, enhancing stealth capabilities under various operational conditions Integrated CFD simulations to design an efficient cooling pack, ensuring optimal performance 		
Tema India Ltd., Silvassa	Intern	<i>Jul 2021 – Aug 2021</i>
<ul style="list-style-type: none"> Studied ASME Boiler Pressure Vessel Code SEC VIII Div. 1 and SEC IX 2019 Edition, focusing on NDE techniques (RT, UT, PT, MPT) and various quality assurance methods 		

PROJECTS

Optimization of tractor production through strategic poka-yoke implementation

- Reduced assembly errors by 30%, enhancing quality and reliability across various models and their 100+ variants
- Achieved 98% accuracy in part verification by integrating barcode scanning system with SAP's Bill of Materials
- Collaborated with teams to enhance part identification, stacking, and tagging, boosting efficiency by 25%

Microstructural mechanical and corrosion characterization of additively manufactured stainless steel

- Utilized Wire Arc Additive Manufacturing (WAAM) with cold metal transfer to manufacture AISI 316L
- Investigated metal deposition strategies in wire arc additive manufacturing for AISI 316L stainless steel
- Established standardized welding parameters and optimal fabrication strategies, highlighting the importance of path planning to reduce waste, distortion, failures, and financial losses
- Conducted CPP, EIS, DLEPR, and FCGR tests to evaluate material behaviour under different thermal scenarios
- Used MATLAB and Simufact Additive for data analysis and simulation, enhancing material property insights

Design and fabrication of a suspension system for all-terrain vehicle (ATV)

- Developed an ATV suspension system, reducing sprung mass by 20% and improving trail ride characteristics
- Utilized MSC Adams, ANSYS-Static & Transient, Solidworks, and Lotus SHARK for design and analysis
- Performed DFMEA on designed components to ensure reliability and performance

PUBLICATION

Gaurav Joshi, A.S. Shahi, Prediction of angular distortion in austenitic stainless steel welds using finite element analysis, Materials Today: Proceedings, Volume 62, Part 14, 2022, Pages 7517-7522, ISSN 2214-7853

ACTIVITIES/ACHIEVEMENTS/CERTIFICATIONS

- Best performer in training "Operational Excellence for Young Engineers", Mahindra & Mahindra *Sep 2023*
- Contributory talk, 9th International Conference AFTMME," IIT Ropar *Dec 2021*
- Participant, AIT 5-Minute Research Pitching, Asian Institute of Technology Thailand *Oct 2021*
- "Pride of Punjab" Award, BAJA SAEINDIA, Society of Automotive Engineers India *Mar 2020*
- Participant, Aravalli Terrain Vehicle and Mega ATV Championship, Infileague motorsports and Autosports India, respectively *Mar 2019*
- Participant, Regional-level, 24th National Children's Science Congress *Oct 2016*