MATTHEW NEJEDLO

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SUMMARY

Mechanical Engineer with hands-on experience in automotive and aerospace industries. Brings a solid background in systems engineering, Quality Engineering, and manufacturing processes. A "M.A. & Lila Leadership" Scholar recognized for leadership and teamwork. Proficient in SolidWorks and MagicDraw, with a passion for driving innovation and impactful solutions to complex problems.

EDUCATION

Illinois Institute of Technology, Chicago, IL 08 2021 - 05 2025

B.S. Mechanical Engineering

- IIT Motorsports (SAE Electric)

PROFESSIONAL EXPERIENCE

VSET (Systems Engineer)

Ford Motor Co., Dearborn, MI 07 2025 - Present

- Analyzed new vehicle platform behaviors, collaborating with cross-functional teams and technical specialists
- Translated technical insights into activity diagrams (MagicDraw), informing vehicle system requirements
- Developed an AI tool to automate activity diagram creation and synthesize relevant system requirements, enhancing efficiency of initial modeling
- Led product execution proposals from customer input, including advocacy, pitch creation, and ROI analysis.
- Collaborated with Marketing, Upfitter, and Accessory Engineering to define product behavior and assess market potential
- Designed and prototyped new product concepts, managed quoting, and implemented cost reduction strategies

Product Development (Systems Engineering) Intern

Ford Motor Co., Dearborn, MI 05 2024 - 08 2024

- Connected physical and logical architecture using SysML (MagicDraw)
- Interfaced with a cross-disciplinary team to handle challenges in problem definition and communication
- Identified opportunities for improvement in MBFMA tools and processes

Manufacturing Engineering Co-Op

Collins Aerospace (Raytheon Technologies), Rockford, IL 01 2023 - 08 2023

- Partnered in development of new **Ram Air Turbine** manufacturing or assembly processes as well as wind tunnel integration scalable to nearly 50% of RAT testing operations
- Co-Led a cross-functional team of engineers to implement shadowboards in nearly 15% of plant assembly areas
- Partook in continuous improvement initiatives, utilizing Lean Manufacturing and Six Sigma/Design for Six Sigma, to overhaul wind tunnel gantry mounting processes and protect Airbus A320 ram air turbines from damage due to FOD / impact
- Studied Lean/Six Sigma(Green Belt)/ CORE doctrines for further application
- Ensured continuous manufacturing operations contingent to a >50% workforce reduction

Manufacturing Process Engineering Co-Op

American Orthodontics, Sheboygan, WI 01 2020 - 05 2020

- Collaborated in production and distribution of orthodontic devices to customers in over 110 different countries
- Learned how to conduct root cause analysis and enforce corrective actions to improve product quality and reduce defects.

LEADERSHIP EXPERIENCE

Leadership Academy Scholar/Scholarship Recipient 04 2022 - Present

M.A. & Lila Leadership Academy

- Collaborated to further a highly-selective full-tuition scholarship program focused on:
- Enhancing critical thinking, problem-solving, and decision-making abilities through exposure to diverse perspectives and real-world challenges via observation of and presentation in seminars
- Cultivating self-awareness and emotional intelligence to lead and collaborate with others in a team-based environment

SKILLS AND CERTIFICATIONS

- Technical Skills: SolidWorks, Autodesk, Inventor and Fusion 360, MATLAB ,CATIA Magic Draw, Siemens NX
- Certifications: Leading and Motivating People with Different Personalities(American Negotiation Institute,2023), Agile Project Leadership (Project Management Institute,2023)

PROJECT EXPERIENCE

A.M.P.L.E. 06 2021 - Present

- Designed an illuminated-sterilizing handrail to create an Anti-Microbial/Protected Lighting Environment
- Implemented additive manufacturing processes (3D Printing), and basic electrical wiring involving LED drivers