

NOLAN ORR

MECHANICAL ENGINEER

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SUMMARY

Detail oriented mechanical engineer with 5+ years of hands-on experience working to ensure quality automotive products.

EDUCATION

University of Michigan Ann Arbor Sept. 2015 - May 2020
BSE Mechanical Engineering 2020
French Language Minor

De La Salle Collegiate Highschool Warren MI Aug. 2011 - May 2015
High School Diploma

EMPLOYMENT

International Automotive Components (IAC), Product Engineer, Troy MI Jan. 2022 - Current

- Primary focus on class A interior hard trims for IAC's electrified OEM group
- Collaborate with internal development teams and OEMs to improve traditional and hybrid molded feasibility and performance
- Lead technical discussions with tooling and equipment and tooling vendors to improve design for manufacturing
- Help develop patterns for wrapped interior components and rapid prototypes of interior hard trim
- Organize and execute material trials and product validation testing plans for PPAP

Stellantis (Previously FCA), Plant Supplier Operations Engineer - Exterior Commodities, Detroit Assembly Complex- Mack Ave. Dec. 2020 - Dec. 2021

- Responsible for supplier quality and color harmony of exterior vehicle commodities during the platform launch of the new 2021/22 Grand Cherokees (WL)
- Utilized cross functional teams to establish containment, clean points, and corrective actions for quality spills
- Determine root cause of product defects using Shanin Red-X/ KT methods
- Assist in cost recovery efforts for material defects and lost manufacturing time
- Created quality notifications and inspection procedures for issues detected during vehicle assembly and final vehicle audits
- Managed 33 quality inspectors across multiple quality checkpoints within the general assembly and on final certification line

Yanfeng Automotive Interiors, Product Innovations Intern, Holland MI May 2019 - Aug. 2019

- Primary project focused on solutions aimed at new mobility in the car-sharing industry
- Collaborated on project teams with industrial designers, internal design studio, tooling engineering, and marketing research analysts
- Assisted subsidiary startup on OEM focused interior innovation projects

Process Engineering Intern, Moeller Aerospace, Wixom MI May 2018 - Aug. 2018

Created new process models and operation plans for aviation and power generation parts
Worked with senior quality and process engineers in the design of tooling and gauge fixtures, manufacturing operations design, and materials management on actively manufactured parts
Assisted in job cost management through increasing manufacturing efficiency

SKILLS

CAD: Solidworks, Catia V5, NX, Fusion 360, Teamcenter, Cura Slicer

COMPUTER SKILLS: Microsoft Office, MATLAB, Adobe CS, Minitab, Docker

COURSE EXPERIENCES: Kepner Tregoe, Shanin Red X, DFM/ DFA, FEA (Hypermesh)

PROJECTS / INTERESTS

Automotive Tinkering

- Full drive train removal for EV swap
- High voltage battery disassembly
- Top-end engine tear down
- General preventative maintenance
- Full restoration of convertible roof hydraulic systems
- Custom 3D printing fixtures and jigs

Home Server

- Personal media server
- Home automation/ management
- Personal data hosting/archiving
- Remote 3D printer operation

3D Printing

- FDM Printer modifications and tweaks
- Headrest mounted coat hook
- Threadless jewellery removal tool

ACTIVITIES

Michigan Autonomous Aerial Vehicles (MAAV)

Structures Lead Winter 2017 - Fall 2018

- Student lead project team at UM focused on the design, manufacture and programming of an autonomous drone for international competition
- Managed the design and manufacturing process of structural components, creation of 3D printed molds for carbon fiber layups, version control over design iteration cycles, material procurement and budget
- Developed safety standards for in-house manufacturing practices, and indoor test flights

Model United Nations at The University of Michigan (MUNUM)

Secretary of Publicity, Committee Director (IPC) Fall 2015 - Jan. 2020

- Model United Nations conference hosted for tri-state area high school students
- Managed in-conference publications and student logistics as Director of IPC
- Initiated all merchandising initiatives and sales, managed conference social media and branding, and led conference wide videography as Secretary of Publicity

Comité Francophone

Member Winter 2016 - Mar. 2020

Weekly French language conversation student group on campus