Jordan Cook, P.Eng.

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Skills

Mechanical

Solidworks, OnShape, Draftsight, DFMEA, FEA, Stress Analysis, Hydraulics, Weld Design, Component Sizing, Drivelines, System Integration, PLM, ERP, GD&T, Drawings

Manufacturing

Sheet Metal, Injection Molding, Heat Treating, Machining, Welding, Stamping, Weldments, 3D Printing, Forging

Programming

HTML, CSS, SCSS, Javascript, Visual Basic

Experience

Arva Industries **August 2020 - Present**
Mechanical Engineer

- Led the design and optimization of off-highway mining vehicles, including hydraulic systems, complex structures, and welded joints, by applying FEA, analytical methods, and industry standards—resulting in vehicles that exceeded performance, safety, and durability requirements under extreme operating conditions
- Developed analytical methods to assess static and dynamic performance and stability of mining cranes and scalers, including sizing hydraulic components, motors, gearboxes, and stabilizers, while optimizing welds and weldments to enhance overall equipment reliability and performance
- Created comprehensive component and assembly drawing packages applying GD&T and industry standards to improve communication between design and manufacturing teams, which reduced fabrication errors by 25% and accelerated production timelines by 15%
- Provided technical support during manufacturing, collaborating with cross-functional teams to ensure assemblies met performance and functionality requirements, resulting in reduced defects and timely project completion
- Utilized enterprise PLM and PDM to organize, control revisions and complete engineering changes for large vehicle assemblies of up to 50000+ components.
- Developed a centralized technical documentation platform, organizing reference materials and design standards, which reduced onboarding time by 50% and improved team knowledge transfer and self-sufficiency.

Litens Automotive Group **February 2016 - February 2020**
Product Designer

- Designed and developed the first prototype of a second-generation torsional isolating device, leading to global sales of over 2.5 million units and generating $350M+ in revenue for OEM clients including Volkswagen, BMW, Renault, Geely, Audi, and Fiat
- Delivered innovative design solutions to complex prototype and production challenges by leveraging material selection, surface modification, process development, FEA (SolidWorks Simulation), 3D modeling, and test design—consistently exceeding customer performance and quality requirements
- Collaborated with contract manufacturers—including injection molders, stampers, heat treaters, and machine shops—to develop and refine manufacturing processes, resolve prototype and production challenges, and optimize designs, resulting in improved quality and cost efficiency
- Planned, designed, and developed test methods, fixtures, and tools for component and assembly-level validation, to ensure products consistently exceeded performance and durability requirements
- Developed a system to automate the creation of 3D models for a specific product line based on customer design inputs, reducing the time to generate cad data by 98%

TD Bank Group **May 2015 - February 2016**
Technology Solutions Associate

- Monitored and supported a mission-critical enterprise data storage infrastructure spanning multiple data centers, proactively identifying and resolving system issues to maintain 99.99% uptime and ensure uninterrupted data access for business operations
- Transitioned the team's operational reporting from PowerPoint to Tableau Business Intelligence and Analytics platform to facilitate data-driven, standardized, automated reporting - resulting in an efficiency improvement of 50%
- Lead a small associate team to develop a concept solution that aimed to centralize and personalize tools and information for employees

Litens Automotive Group **May 2013 - September 2014**
Product Development Intern

- Supported the design of vehicle components for large scale production and coordinated engineering projects for OEM automotive companies such as Audi, Volkswagen, GM, Ford, Chrysler, Honda, Toyota, and Hyundai
- Delegated tasks and provided support to analysis and testing teams to facilitate moving components through the product development lifecycle
- Liaised with injection moulding, forging, machining and stamping suppliers to support technical discussions, gather feedback and optimize designs for manufacturing
- Increased proficiency in mass production part design focusing on technical skills such as GD&T, DFMEA, 2D drawings, and Solidworks

Western Baja SAE **January 2012 - September 2013**
Technical Manager

- Led the technical team in the end-to-end design and manufacturing of an SAE Baja off-road vehicle, aligning cross-functional efforts to meet tight competition deadlines and resulting in a fully functional, rule-compliant prototype delivered on schedule
- Managed a $15,000 project budget by evaluating design trade-offs, approving subsystem plans, and enforcing high engineering standards, which enabled on-time procurement and reduced design rework by 20%
- Ensured full compliance with SAE competition rules by developing a comprehensive design checklist and conducting team-wide reviews, which prevented disqualification issues and improved judges' scoring for rule adherence
- Designed and analyzed key prototype components—such as the suspension and chassis—using SolidWorks and simulation tools, producing an integrated vehicle model that passed all design validations and met performance targets

Education

Juno College of Technology **January 2020**
Javascript

Juno College of Technology **May 2019**
Advanced Web Development

Western University **2015**
Mechanical Engineering B.E.Sc with Honors

Fanshawe College **2007**
Automotive Technology