

NIRMAL PRASAD

Atlanta, Georgia, USA - US Citizen, Willing to Relocate

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Summary

Proven Senior Mechanical Engineer with 10 years' experience placing emphasis on making products that are functional, economical, and easy to manufacture backed with 12 years' experience in welding and fabrication seeking a senior engineering position with growth potential.

Experience

Yamaha Motor USA (Motorsports Division) - Marietta, Georgia, USA

Senior Product Development Engineer: Feb 2023 - Present

Product Development Engineer II: April 2019 – Feb 2023 (Promoted)

- Develop accessories for motorcycles (street and off-road), ATVs and SXSs (side by sides).
- Manage projects in their entirety, including the required **R&D**, from the start of an idea through to the product being in stock and ready to be sold to the customer which includes creating the initial **3D CAD** design, BOM development, working with the styling team to reach a manufacturable design, conducting **FEA**, building in house and/or sourcing prototypes, working with the testing team, holding in-house design review meetings for styling, functionality, and **pricing target**, meeting with suppliers for **manufacturability**, holding final approval meetings to proceed to production, as well as working with the marketing department for product introduction.
- Design accessories that involve the following various materials and manufacturing processes:
 - **Fabricated** sheet steel and aluminum, machined billet aluminum, die-cast aluminum, injection-molded plastic (GF-nylon, PE & PP), blow-molded plastic (PE and PP), and laminated glass.
- Work with the OE engineering team for **accessory integration** during the vehicle design process (Yamaha Japan, Europe, Taiwan and Indonesia).
- Worked 90% remote during the pandemic without impacting the development process.
- *Notable Accomplishments:*
 - Designed a cab system, automotive style side mirrors, glass windshield with washer and wiper, a front brush guard, and a front skid plate that have all exceeded projected sales.

TEXTRON GSE, TUG - Kennesaw, Georgia, USA

Mechanical Engineer: January 2019 – April 2019

Mechanical Designer II: July 2017 – January 2019 (promoted)

Mechanical Designer I: January 2014 – July 2017 (promoted)

- Revamped the current line of aircraft pushback tractors with ground up designs as part of the **New Product Development** team.
- Designed airline ground support equipment and mechanical parts within the Engineering and **R&D Department**. Researched, sourced and established new parts occasionally assisting the Fabrication Department in the making of new parts and **production support**.
- *Notable Accomplishments:*
 - Designed the unibody frame of the new aircraft pushback tractors (Alpha 4 and Alpha 3), ballast systems, panels, gratings and doors. Physically helped build the prototypes.
 - Designed a CNG fuel system that is NFPA-52 compliant for a baggage tractor which saved the company \$3000 per tractor. Established safe purging, filling procedures and trained the assemblers. In 2016 alone, 60 units were sold.
 - Designed OSHA compliant safety rails that are collapsible to be mounted on pushback tractors.
 - Incorporated a new Ford engine in TUG's MT baggage tractor for United Airlines which necessitated the following newly designed parts modeled in 3D and drawn: transmission mounts; radiator and air filter mounts; coolant, intake and exhaust pipes; hydraulic hoses

and fitting kits; parking brake system; shrouds and driver guards; driver/operator controls; and LP fuel system option parts. Created the bill of materials. Assisted in the assembly of the prototype. United placed an order for several units. 2016.

- Because of my unique skill set in **engineering and fabrication**, I traveled to Cheltenham, England to train employees on a new CNC Plasma cutter and share fabrication knowledge at TUG's sister company, Douglas Equipment. While there I also represented Textron/TUG in a meeting with the President of Newage Axles in Coventry, England.
- Designed an unbreakable seat suspension system for Fed-Ex baggage tractors and created a service bulletin with photos and instructions on how to make the changes in the field.
- Converted a baggage tractor suspension system from an expensive cradle pivot system to a leaf spring suspension system resulting in ease of **manufacturability** with cost effective parts. This saved the company nearly \$1000 per unit.
- Consistently helped new engineers with **sheet metal design and fabrication** techniques.

Fabricator, Welder, and Team Leader – 2002 - 2014 (promoted)

TEXTRON GSE, TUG - Kennesaw, Georgia, USA

- Welded tractor chassis/frames and parts.
- Demonstrated dedication and leadership and was promoted from Welder to Team Leader within the Welding Department and eventually promoted to Fabricator.
- Invented small tools and built jigs to improve processes, quality, and quantity.
- Designed, modified and fabricated parts; drove forklifts; operated plasma cutter, arc gouge, and punch; and assisted in vehicle assembly.

Welder and Welding Robot Operator – 2000 - 2002

Herman Miller - Canton, Georgia, USA

- Welded frames for office equipment.
- Operated Fanuc 2000 triple axis welding robots.

Skills & Attributes

- Proficient in **Solidworks, Autodesk Inventor 3D, Teamcenter, Microsoft Office, JDE, SAP.**
- Proficient in rapid prototyping with 3D printers.
- Dependable, detail-oriented, dedicated, excellent work ethic and take pride in my work.
- Comfortable with presentations to a diverse audience and working among multicultural and **multinational teams.**
- Able to multi-task patiently in a fast-paced environment.
- Nimble in interdepartmental communication from production employees to engineers to upper management.
- Expert in creation of technical, welding and fabrication drawings.
- Proficient in bills of material development, management and corrections.
- Capable of sourcing OEM parts for incorporation into designs.
- Expert in: sheet metal fabrication, operation of Accupress **Brake Press and Messer Plasma Cutting Table**; 4G Mig welding (GMAW); flux core welding (FCAW); fabrication tools: drill press, mag drill, cutting torch, shear, and ironworker.

Education & Certifications

- **Project Management Certificate – 2023 Kennesaw State University**
- **Certified Solidworks Advanced Part Modeling, Solidworks Simulations Essentials (FEA)**
- Certified in Mobile Hydraulics – Eton Hydraulics
- **Diploma in Drafting Technology – 2015 Chattahoochee Technical College**
GPA: 3.94 - Certified Drafter's Assistant - Certified CAD Operator
- Certified 3G GMAW Welder
- Private Aviation Pilot with Instrument Rating - FAA

Personal Information

Native fluency in American English, Tamil, Kannada, and Hindi. Learning Italian.

Hobbies & Interests: Motorcycling, deer, turkey and hog hunting, travel and cooking.