

# UCHE *Ajuonuma*

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## SUMMARY

*Results-driven Mechanical Designer with over 10 years of experience designing innovative, high-performance industrial equipment and manufacturing systems, including vehicle components and specialty products. Certified SolidWorks Professional with expertise in CAD modeling, FEA simulations, and compliance with industry standards such as CSA, ASME, and OH&S. Skilled in stainless steel and aluminum fabrication, material selection, and optimization of manufacturing workflows. Proven ability to collaborate with cross-functional teams, mentor junior designers, and deliver cost-effective, high-quality solutions tailored to customer needs.*

## CORE COMPETENCIES

- **CAD Expertise:** SolidWorks (PDM, Simulation), Siemens NX, AutoCAD, Inventor, Solid Edge
- **Vehicle and Equipment Design:** Expertise in designing vehicle components, heavy-duty equipment, and custom systems
- **Fabrication Knowledge:** Welding, sheet metal, injection molding, and lean manufacturing
- **Material Selection:** In-depth knowledge of material properties for structural and mechanical integrity
- **Regulatory Standards:** Proficient in ASME B31.1, B31.3, Y14.5, Section VIII, and CSA standards
- **Project Leadership:** Mentoring teams, managing schedules, and ensuring on-time project delivery

## PROFESSIONAL EXPERIENCE

### Mechanical Design Engineer (E.I.T)

#### Solex Thermal Science – Calgary, AB | Feb 2024 – Present

- Designed moving-bed heat exchangers and bulk material handling systems, ensuring compliance with ASME Section VIII and CSA B51.
- Prepared fabrication-ready drawings, streamlining production and reducing time-to-market by 15%.
- Conducted FEA simulations and stress calculations to meet OH&S and CSA standards.
- Created piping layouts and flow diagrams using SolidWorks, Solid Edge, and Inventor

### Senior Mechanical Designer

#### Westinghouse Electric Canada – Peterborough, ON | July 2023 – Feb 2024

- Designed nuclear material handling equipment, adhering to CSA N285.0, ANSI Y14.5, and ASME B31.3 standards.
- Mentored junior designers in SolidWorks modeling, GD&T principles, and revision control using SolidWorks PDM.
- Managed project schedules, collaborated with cross-functional teams, and achieved a 95% on-time delivery rate.
- Conducted design reviews to resolve conflicts early, enhancing production efficiency.

## **Research & Development Engineer**

**Intelligent Wellhead Systems (IWS) – Calgary, AB | April 2022 – July 2023**

- Designed smart lock-out devices and wellhead systems compliant with ASME B31.1 and CSA Z662.
- Conducted tolerance stack-up analyses, reducing assembly errors and improving product reliability.
- Developed BOMs and detailed fabrication drawings, ensuring compliance with OH&S standards.
- Integrated customer feedback and field data into improved system designs.

## **Mechanical Designer - Product Quality Validator**

**SKF Group – Calgary, AB | May 2019 – April 2022**

- Designed and tested mechatronic systems, including rotary magnetic levitation bearings, ensuring precision and reliability for high-speed industrial applications.
- Conducted finite element analysis (FEA) and rotational performance testing for neutron choppers and maglev bearing for compression and wafer manufacturing systems.
- Improved product performance through iterative design and testing, reducing production errors by 20%.

## **Senior Mechanical Designer**

**FuelFact – Ottawa, ON | Oct 2017 – May 2019**

- Designed and detailed forecourt automation systems and fuel monitoring devices, ensuring compliance with CSA C22.2 standards.
- Performed material selection and design optimizations, reducing material costs by 15%.
- Conducted field inspections and prepared fabrication-ready sketches, ensuring precision and manufacturability.

## **Design Engineer**

**Innoson Motors – Nnewi, Nigeria | Oct 2012 – Oct 2017**

- Led the design and development of truck bodies and vehicle components, achieving a 20% reduction in production time through optimized designs using Siemens NX.
- Streamlined product development by implementing a lifecycle management system for components and BOMs in Teamcenter, reducing development time by 30%.
- Collaborated with cross-functional teams to develop cost-effective and manufacturable designs, achieving a 98% on-time delivery rate.
- Applied lean manufacturing principles to reduce waste and improve overall process efficiency in vehicle production.
- Delivered robust, reliable designs that enhanced functionality and durability while meeting safety and regulatory standards.

## **EDUCATION**

### **Bachelor's Degree, Mechanical Engineering**

Imo State University | 2012

- WES Verified Transcript

## **CERTIFICATIONS**

- **Certified SolidWorks Professional (CSWP)** – Dassault Systèmes
- **Professional Scrum Master (PSM)** – Scrum.org