

# Mohammed Y. Hagu

Country & State: United States – North Carolina

Mobile: +13369443195

Email ID: mohammedhagu97@gmail.com

## EDUCATION & CREDENTIAL

📄 **Bachelor Degree in Mechatronics Engineering- 2023- Sudan International University –Khartoum, Republic of Sudan.**

📄 **Western Guilford Highschool – Greensboro, NC USA - High School - 2015**

## CAREER SUMMARY

- A dedicated Mechatronics engineer expertise in integrating mechanical, electronic, and control systems to design and implement innovative and efficient engineering solutions.
- Experienced in Automation and Robotics, specializing in developing and programming intelligent systems to optimize manufacturing and industrial processes
- Strong Analytical & Technical skills, capable of diagnosing and resolving complex technical issues within integrated mechatronic systems to ensure peak performance.
- Committed to innovation and continuous learning, with a focus on advancing technical skills, and pursuing opportunities for professional growth and development.
- Effective Communicator and Team Player, capable of collaborating with multidisciplinary teams to achieve project goals and ensure technical excellence through clear and concise communication.

## EMPLOYMENT HISTORY

### Technical Support Specialist (Freelance)

Khartoum – Sudan

2018/Mar 2020/Nov

### Inspector I (Material Tester)

Engineering Consulting Services Ltd. – Greensboro NC – USA 2023/Nov 2024/  
September

## RESPONSIBILITIES AND DOMAIN SKILLS

### SYSTEM DESIGN – AUTOMATION – TROUBLESHOOTING – INSPECTING

- » Skilled in designing complex mechatronic systems, integrating mechanical, electronic, and software components to achieve optimal performance and efficiency.
- » Demonstrated the application of motion control systems for manufacturing, gaining practical skills in mechanical design and automation.
- » Analytical thinking and attention to detail for identifying and resolving mechatronic systems issues.
- » Lead a team in developing quality control systems for simulated production line, focusing on error detection and process improvement.
- » Diagnosing and resolving technical issues in mechatronic systems, ensuring that machines and equipment operate smoothly and efficiently
- » Successfully integrate and program robotic systems for automated assembly lines, enhancing operational efficiency and reducing manual labor requirements.
- » Conduct detailed analysis of existing automated systems to identify inefficiencies and implemented process improvements, leading to significant reductions in downtime and waste.
- » Support research and development projects, focusing on system testing, quality assurance, and process analysis.
- » Being fully aware of the technical aspects in the field of application and method of preparing the work procedures by studying and discussing the major issue during all phases of optimizing mechatronic systems.

- » Conducted thorough inspections of construction sites to ensure adherence to project specifications, safety protocols, and regulatory requirements.
- » Evaluated the quality of materials, workmanship, and construction processes to guarantee that they met established quality benchmarks.
- » Monitored compliance with building codes and standards, providing detailed reports on any discrepancies or safety hazards.
- » Prepared detailed reports for management, outlining inspection results and recommending solutions to improve project quality and safety.
- » Maintain and ensure the quality and safety of standards throughout the work, Co-ordinate with sub-contractors.

## Projects & Accomplishments

### ❖ Automated Conveyor Belt Using Geneva Mechanism

University Research Project, Sudan International University

- Designed and developed an automated conveyor belt system using the Geneva mechanism to achieve precise, intermittent movement for material handling.
- Created the conveyor system with CAD software and optimized its mechanical design for efficient operation.
- Demonstrated the application of motion control systems for manufacturing, gaining practical skills in mechanical design and automation.

## COMPETENCIES:

- |  |                                    |
|--|------------------------------------|
| • Fundamentals of Electrical Engineering           | • Proactive problem-solving        |
| • Measurements and Instrumentation                 | • Fluid Mechanics                  |
| • Material Science                                 | • Evaluating mechanical prototypes |
| • Mechanics of Material                            | • Analytical Thinking.             |
| • Control Systems                                  | • Manages Change.                  |
| • Manufacturing Processes                          | • Health and Safety.               |
| • Metrology and Quality Engineering                | • Conflict Resolution.             |
| • Drives and Controls for Automation               | • Oral Communication & Evaluation. |
| • Verifying performance and reliability of systems | • Enhancing operational efficiency |

## TECHNICAL SKILLS

- Microsoft Office
- PLC Programming and Automation
- AutoCAD (Drafting & drawing program)
- Quality Assurance
- Python and C++ for automation

**REFERENCES:** Available upon request