

OUISSAM EL KABACH

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Starkville, MS

PROFILE

Hardworking Aerospace Engineering Master's student at Mississippi State University with practical experience in **designing, fabricating, and operating** mechanical systems. I am skilled in **3D modeling, GD&T, CNC machining, fluid systems, and testing environments**. Trained in advanced manufacturing methods and rocket system components with hands-on experience across structural, thermal, and fluid domains.

EDUCATION

Mississippi State University-Starkville, MS	January 2024- July 2025
Master of Science in Aerospace Engineering	
International University of Rabat-Rabat, Morocco	September 2019- December 2023
Bachelor of Science in Aerospace Engineering	

WORK EXPERIENCES

Engineering Design Technician, IDEELab Mississippi State University-Starkville	August 2024- Present
<ul style="list-style-type: none">Operate CNC and 3D printing systems to fabricate test hardware components.Interpreted engineering drawings and GD&T using VL-700 3D scanner to ensure part conformance.Conduct preventive maintenance and diagnostics on lab CNC systems and sensors.Support the setup and operation of large-bed milling machines for academic manufacturing projects.Collaborate with design engineers to adjust CAM paths and improve machining accuracy.	
Teaching Assistant, Mississippi State University- Starkville	August 2024-May 2025
<ul style="list-style-type: none">Reviewed over 200 lab reports for technical precision and measurement accuracy.Trained students in proper documentation and interpretation of engineering specifications and tolerances.	
Operations and Training Manager, Magnolia Trash Valet LLC-Starkville	January 2024-May 2024
<ul style="list-style-type: none">Trained 10+ new employees, increasing operational efficiency by 30%.Served as a liaison between 5+ property managers and company ownership, ensuring smooth operations.Resolved 95% of customer inquiries within 24 hours, improving client satisfaction.	
Mechanical Engineering Intern, International University of Rabat- Rabat	May 2022-July 2022
<ul style="list-style-type: none">Contributed to the inventory and classification of pilot equipment, including water softeners, cooling towers, boilers, pumping systems, and piping, for the sea water desalination using solar energy project.Developed 2D and 3D drawings of equipment layouts and components.	

PROJECTS

Design and Fabrication of a Functional Electric Vehicle (EV), UIR - Rabat	September 2022-December 2023
<ul style="list-style-type: none">Took precise measurements, achieving a 98% accuracy rate for vehicle dimensions.Utilized fiberglass panels and performed material cutting and welding.Utilized CNC milling and manual machining to produce lightweight chassis components and performed FEA.Managed the bill of materials and collaborated with procurement teams on inventory planning aligned with MRP systems.	
Water Rocket Design and Launch, UIR- Rabat	June 2022- August 2022
<ul style="list-style-type: none">Designed and prototyped aerospace components using CNC machining and 3D printing.Collaborated with a team to plan and execute multiple launch events, collecting data for analysis.	

CERTIFICATIONS

- America's Cutting Edge (ACE) Advanced Manufacturing Program
- SolidWorks and CATIA Certification.
- KEYENCE VL-700 3D Scanner Proficiency.

LANGUAGE

- Fluent in English, French and Arabic

SKILLS

Technical: 3D scanner (VL-700), 3D printing, CNC Machining, SolidWorks, CATIA, AutoCAD, ANSYS, Design and Manufacturing, C++, MATLAB, Python, Microsoft Excel, Word, PowerPoint, Teams, and OneNote.

Soft skills: Accountability, Attention to detail, Leadership, Customer service, Decision making, Flexibility, Integrity & honesty, Interpersonal skills, Learning, Communication, Self-management, Stress tolerance, and Teamwork.