JONATHAN EDWARDS
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PROFESSIONAL SUMMARY

Mechanical engineering student with hands-on experience in aircraft systems, precision manufacturing and embedded automation. Skilled in CAD, CNC machining, Python programming, and Cybersecurity. Can perform simulations and analysis using computational fluids dynamics on Ansys Fluent and FEA on SolidWorks Simulation. Worked on real-world aircraft control systems (flaps, deicing boots), designed automated systems using Arduino, and built functional web apps. Passionate about engineering systems that blend mechanical precision with digital intelligence. Took up Cybersecurity training to address vulnerabilities in CNC machines, autonomous robots, drones and other connected systems, aiming to build resilient engineering systems that are secure by design. Proficient in French, English and Swahili.

SKILLS

- ✓ **Engineering Tools:** SolidWorks, AutoCAD, CNC machining, lathe, milling, drilling, welding, Ansys Fluent.
- ✓ **Programming:** Python, C, C++, HTML/CSS, JavaScript.
- ✓ **Hardware/IoT:** Arduino, servos, sensors (ultrasonic, IR).
- ✓ **Data/ML:** Pandas, NumPy, matplotlib, scikit-learn.
- ✓ **Cybersecurity:** Ethical hacking (CISCO), ISC2 Cybersecurity basics, Malware Analysis
- ✓ **Other:** Git, GitHub, Web development.
- ✓ **Soft Skills:** Analytical thinking, Team leadership, Critical thinking, Emotional intelligence, Problem-solving, Self-driven, Communication, Adaptability.

WORK HISTORY

Feb 2026 to May 2026 **MECHANICAL ENGINEERING ATTACHEE, KENYA SPACE AGENCY, NAIROBI**

- ✓ Worked on nanosatellite designs of a cube-SAT using SolidWorks and converted the files to .stl format for fabrication using a Bambu lab 3D Printer.
- ✓ Ran simulations of spacecraft including missiles, satellites and rockets on the Ansys AGI STK software to practice the orbital mechanics associated with them.
- ✓ Designed rockets on the open rocket software with various designs, varying the payload and fins design to verify on its stability and the effects of the center of pressure and center of gravity on the model.

Feb 2025 to Apr 2025 **MECHANICAL ENGINEERING ATTACHEE, SKYWARD AIRLINES, WILSON AIRPORT**

- ✓ Participated in aircraft maintenance operations, including A-checks and C-checks per KCAA protocols.
- ✓ Worked on flight control surfaces such as flaps and assisted in servicing deicing boots on turboprop aircraft.Followed airworthiness and safety-critical inspection procedures using Aircraft Maintenance Manuals (AMMs).
- ✓ Maintained aviation security through tool accountability, area clearance procedures, and part traceability.
- ✓ Logged maintenance activities and supported engineering documentation for compliance audits.

Dec 2024 **MASTERCARD CYBERSECURITY VIRTUAL EXPERIENCE PROGRAM ON FORAGE**

- ✓ Completed a job simulation where I served as an analyst on MasterCard's Security Awareness Team
- ✓ Helped identify and report security threats such as phishing.
- ✓ Analyzed and identified which areas of the business needed more robust security training and implemented training courses and procedures for those teams

Jan 2024 to Dec 2024 **MECHANICAL ENGINEERING ATTACHEE, DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY**

- ✓ Designed and optimized machine components using CAD, cutting material waste by 15% in CNC fabrication.
- ✓ Operated lathe, milling, and drilling machines to produce mechanical parts.
- ✓ Carried out arc welding for structural joints in lab-scale mechanical assemblies.
- ✓ Installed and serviced basic electrical systems within the university mechanical workshop

EDUCATION

CURRENT (Est. 2026) **B.Sc DEGREE: MECHANICAL ENGINEERING DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY -** NYERI, KENYA

2022 **KSCE: ST PETER'S MUMIAS BOYS HIGH SCHOOL** – KAKAMEGA, KENYA

Certifications: Ethical Hacking – CISCO Networking Academy

Cybersecurity Fundamentals – ISC2 / Obrizium

Software & Web Development – Power Learn Project

Data Science & Machine Learning – Udemy

ACCOMPLISHMENT

1. Designed parts of an extruder and asssembled them together to obtain a fully working machine.
2. Automated Security Gate System (Arduino): Built an ultrasonic-sensor based gate opener with servomotor actuation. Simulated intruder detection by activating house lights on proximity breach.
3. Graph Plotter Web App: Developed a browser-based graph plotting tool for students and teachers. Hosted live at: graphplotter-jonah-11s-projects.vercel.app
4. GitHub Portfolio: Contains source code for web, automation, and data science projects: github.com/Jonah-11
5. Visit my website to view my projects: https://edwardsjonathan.netlify.app

REFEREES

Available upon request