Jaden Ehoro

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EDUCATION

Bachelor of Engineering, Mechanical, Co-op **September 2023 – Present**
Carleton University Ottawa, ON

- **Third Year Standing**, CGPA: 10.8/12 (A), Deans Honor List (2023, 2024)

EXPERIENCE

Lumentum **January 2026 – Present**
Mechanical Engineering Intern Ottawa, ON

- Designed a **plasma-vacuum system** to clean microscale components to support R&D development for the **world's leaders in optical and photonic technologies**.
- Built the CAD model of Lumentum's largest assembly, the OCS R300, on **SolidEdge**. Managed the BOM and manufacturers using **Agile PLM**.
- Designed **tooling, jigs, fixtures, and electronic packages** for robotic and optical manufacturing processes.
- Performed **FEA thermal, structural, and dynamic analyses** in **ANSYS** to support the design and validation of opto-mechanical components used in hyperscale data-center photonics.
- Conducted **vibration and shock** simulations to assess resonance, fatigue, and mechanical robustness, guiding design decisions for precision optical assemblies.

Carleton University **April 2025 – Present**
Research Assistant Ottawa, ON

- Wrote and contributed to **2 research papers** centered around optimizing gas turbines for performance metrics, using **CFD** to simulate hot and cold flow inside the turbine.
- Applied fluid mechanics and thermodynamics principles on **MATLAB** to iteratively optimize gas turbine geometry.
- Used discrete fracture, evaporation and combustion models using **Ansys Fluent** to create an **empirical formula** for when **fuel injection** merits consideration in mini gas turbines.

Pryor Metals LTD **April 2025 – August 2025**
Mechanical Engineering Intern Ottawa, ON

- Improved customer sheet metal designs for **high-volume manufacturing** using **Fusion 360**, evaluating welds, bends, countersinks, and flange geometry to select appropriate tooling and tolerances.
- Designed a protective enclosure for crane and electrical systems from concept to production, applying **DFM** principles to deliver manufacturable **3D models** and **shop-ready drawings**.
- Supported process adoption by **Fortune 500** clients across automotive, healthcare, and telecom sectors, helping establish Pryor's workflow as a manufacturing engineering standard.
- Hands-on experience with **CAM** programming and **CNC** punch and laser operation, verifying tooling and tolerances to ensure accurate forming and marking.

Nokia **September 2021 – January 2022**
Support Engineer Intern Ottawa, ON

- Hands-on experience with software development tools: **Oracle**, Keycloak, **Kubernetes**, Kanban.

PROJECTS

Thermal Harvesting Drone **December 2024 – Present**

- Designed and simulated a drone base and propellers using SolidWorks and Ansys, achieving an **18% drag reduction** through Fluent meshing analysis; components optimized for **3D printing**. The circuit board was designed in **KiCad**.
- Optimized propellers with Rankine–Froude momentum theory and validated via **Ansys CFX**, designed PCBA for drone.

SKILLS

- **Mechanical/CAD:** SolidWorks, AutoCAD, Solid Edge, Fusion360, Ansys FEA/CFD analysis, 3D Printing, GD&T, CNC manufacturing, CAM programming, DFM/DFA, Sheet Metal Fabrication, Opto-mechanical Design, FMEA, Icepak,
- **Electrical/Computer:** Python, C, MATLAB, Simulink, JavaScript, SQL, KiCad, PCB/PCBA.
- **Other:** DELF B1, PowerPoint, Excel, Word, Jira, Agile, Confluence.