Tolu Oladiti

toluoladiti@gmail.com | 604-506-2824 | www.linkedin.com/in/tolu-oladiti

EDUCATION

University of Calgary Calgary, Alberta
Bachelor of Science in Mechanical Engineering Expected May 2026

PROJECTS

Capstone Design Project – Autonomous Auto-Injector Assembly Mechanism September 2025 – Present

- Engineered a mechatronic EpiPen-assembly mechanism utilizing 4 stepper motors, 2 linear actuators, 2 robot grippers, and proximity and photoelectric sensors, as part of an emergency response drone
- Sized and selected all electromechanical hardware through detailed trade-off analyses evaluating cost, mass, torque capacity, stroke length, and power requirements
- Designed structural components in SolidWorks utilizing DFMA, GD&T, and tolerance stack-up analysis; manufactured and assembled parts using FDM 3D printing, mechanical fasteners, and power tools
- Executed electrical hardware integration (designing power distribution, soldering, and specialised connectors) and programmed C++ logic on the Arduino Mega for precise motor control and sequencing

Mechanical Engineering Lead October 2023 – Present
UCXR, University Mixed Reality Club – uc-mixedreality.ca

- Designed an Augmented Reality headset enclosure in SolidWorks to integrate optical, sensing, and electrical components into a head-wearable device, applying DFMA and GD&T principles to ensure precision
- Executed prototyping and iterative design of custom enclosure components via 3D printing, utilizing measurement tools and hand tools to ensure a precise comfort fit and physical integration of COTS hardware
- Simulated heat dissipation solutions for embedded electronics using ANSYS Mechanical, validating the thermal design model by fabricating and testing a custom CNC-machined heat sink
- Managed a multidisciplinary team of 7 through a fast-paced development cycle, leading the cross-functional integration of all engineering subteams to deliver a Minimum Viable Product

EXPERIENCE

Mechanical Systems Intern May 2024 – Present
De Havilland Aircraft of Canada Ltd – Calgary

- Created 3D CAD models in CATIA V5 to address missing or outdated design data, aiding aircraft assembly and ensuring production readiness for the CL-515
- Executed ground and flight validation testing (V&V) of landing gear door actuation systems, ensuring proper integration between a vendor control unit and the aircraft's mechanical subsystems
- Updated AutoCAD 2D installation drawings on the DHC-6-300G aircraft manufacturing production floor based on AME feedback to resolve assembly issues and released updates through Engineering Change Notices
- Collaborated with cross-functional teams (Materials and Processes, Configuration Management, Technical Publications) to deliver aircraft design modifications

SKILLS

Design and Manufacturing: DFMA, GD&T, Tolerance Analysis, FDM 3D Printing, Prototyping, Mill & Lathe
Software/Tools: SolidWorks, CATIA V5 (3DX), AutoCAD, Fusion360, ANSYS Mechanical, LabVIEW
Analysis: FEA, FMECA, Systems Engineering, Heat Transfer, Machine Learning
Languages: Python, C++, MATLAB