WESLEY EZE

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EDUCATION

University of Alberta **Sep 2020 - Apr 2025**
Bachelor of Science, Mechanical Engineering *Edmonton, AB, Canada*
- **GPA:** 3.5/4.0
- **Achievements:** with Distinction, USports Academic All-Canadian 2024 & 2025, Second Team All-Canadian 2025

PROFESSIONAL EXPERIENCE

NEX Valve **Sep 2025 - Present**
Additive Manufacturing Design Engineer *Calgary, AB, Canada*
- Designed 3D CAD models and 2D drawings for valve components and assemblies, ensuring compliance with ASTM standards and production requirements
- Performed FEA validations and hand calculations to verify structural integrity, safety, and efficiency of line blind systems
- Led rapid prototyping using **FDM and SLA 3D printing**, supporting design verification and deployment to manufacturers in South Korea
- Developed a **provisional patent** for a novel line blind design, improving isolation performance and field usability

PCL Construction **Sep 2024 - Dec 2024**
Field Engineering Student *Edmonton, AB, Canada*
- Automated daily site workflows, leading to a reduction in report preparation time from **3 hours to 15 minutes** and enhanced field process efficiency
- Generated **100+** technical reports to enhance project cost forecasting accuracy.
- Improved field documentation through the digital integration of Bluebeam and ACC, resulting in better tracking and organization of project data
- Conducted field inspections and generated daily reports to validate construction progress and mechanical system installations, ensuring project adherence to designs and timelines
- Coordinated weekly trade meetings, utility locates, and manpower tracking to support project execution and compliance

Beyond Energy **May 2023 - Dec 2023**
R&D Mechanical Engineering Intern *Calgary, AB, Canada*
- Engineered a **full-scale flow loop system** with Al choke control, creating P&IDs and test matrices to validate system performance
- Authored safety and operational manuals for new users, standardizing procedures for testing and system deployment
- Automated well data migration and patent tracking using Python, **reducing 100+ hour tasks to under 3 hours**
- Managed control logic and hardware integration using TIA Portal, connecting WITS inputs and outputs for **real-time monitoring**
- Utilized MongoDB for database management, applying JSON/BSON structures for efficient data storage and retrieval

NCS Multistage **May 2022 - Dec 2022**
Mechanical Engineering Student *Calgary, AB, Canada*
- Designed a Tesla Valve regulator for water-flooding systems, optimizing flow control efficiency and reducing operational costs by increasing the diodicity of the design by 70% without using moving parts
- Developed an Excel calculator for regulator selection, saving over **10 hours per deployment** through automated calculations
- Engineered HydrosetIV, a full-size downhole tool for precise wellbore sleeve positioning, leveraging CAD software and manufacturing engineering skills to enhance deployment accuracy and efficiency

ATHLETIC INVOLVEMENT

Golden Bears & Pandas, University of Alberta **Sep 2021 - Aug 2025**
Varsity Track & Field Athlete & Team Captain
- **4x National Medallist**
- **Represented Canada** internationally in Texas and Germany at **FISU World Games**.
- Elected team and **national captain**; led 120+ athletes while maintaining a 3.5 GPA and multiple work commitments.

PROJECTS

Capstone Project – Robotic Arm for Advanced Dataset Generation | wound3.com **Jan 2025 - Apr 2025**
Fabri Sciences Inc.
- Led a six-person team to design and prototype a **6-axis robotic arm with 3-axis gantry system** for automated data collection, **successfully deployed** in operational use.

SKILLS

- **Soft Skills**: Leadership, Team Collaboration, Project Management, Communication, Time Management
- **Design Tools**: Autodesk Inventor, SOLIDWORKS, Onshape, ANSYS APDL, ANSYS Workbench, Fusion 360
- **Software Tools**: MATLAB, MongoDB, Python, MathCAD