# Noah Elsayed

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## Education

University of Calgary, **Bachelor of Science in Mechanical Engineering**  Sept 2022 – April 2027
- Minor in Digital Engineering (computational methods and applied machine learning)
- GPA: 3.69/4.00
- Awards: Dean's List, Alexander Rutherford Scholarship, Jason Lang Award

## Relevant Experience

**Midstream Engineering Intern**, Canadian Natural Resources Ltd. – Calgary AB  May 2025 - Apr 2026
- Built a TensorFlow tool to track competitor press releases, communicating summaries with PowerBI and reducing monthly analyst prep time by 10+ hours
- Coordinated a 15-site product testing program, improving quality monitoring
- Automated asset production reports in VBA, adopted in monthly executive briefings

**Production Engineering Intern**, Whitecap Resources Ltd. – Calgary AB  May 2024 - Aug 2024
- Built a GUI-based Python tool to size well pumps, validating predictions against 30+ cases with <5% error
- Processed and visualized 2TB of $CO_2$ data in Python and Tableau, enabling anomaly detection within minutes
- Assisted in field operations and diagnosed pump failure mechanisms, leading pump tear-downs
- Presented project at the 2024 Saskatchewan Oil & Gas Show, highlighting cost-saving potential of ML

**Engineering Summer Student**, BRE Group – Calgary, AB  May 2023 - Aug 2023
- Designed fluid mechanics case studies for an industry CCS training program with 200+ participants
- Co-authored an article on the ideal complexity and common pitfalls of reservoir simulation models

## Extracurricular Activity

**Cooling System Lead**, UCalgary Racing FSAE  Sept 2023 - Present
- Designed and tested cooling loop for 80 kW powertrain, reducing system mass by 5 kg
- Designed STM32-based PCB for cooling system data logging, enabling data-driven performance tuning.
- Designed FEA-verified motor controller mount, lowering CG by 7 mm while passing 2.5x safety factor

## Skills & Technologies

**Programming Languages:** C++, Python, SQL, HTML, MATLAB

**Tools and Frameworks:** AutoCAD, CoolProp, FastAI, Git, Inventor, Keras, Linux, Pandas, Revit, Simulink, SolidWorks, Tableau, Power BI, Altium, KiCAD, VBA, LaTeX

## Projects  [Portfolio @ noahkae.com/projects]

**Formula SAE Cooling System**
- Designed team's first cooling system for EV class car, establishing technical framework for future development in a 40-page report and validating with on-track testing and CFD
- Used Altium to create data logging PCB, supporting up to 8 sensors and assembled in-house to minimize cost

**Disease Prediction Tool**
- Led a 4-person team to build a medical pre-screening web app utilizing various machine learning techniques
- Won 1st place + $500 at Biohack 2025 and validated on 5 public health datasets

**Racing Driver Reaction Time Tester**
- Spearheaded a team of 4 in designing a prototype Arduino-powered racing driver reaction time tool
- Awarded as a top 5 project among 100+ submissions