

Nicole Thiessen

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EXPERIENCE

Technical Analysis and Intellectual Property Assessment Intern

July 2025 – August 2025

CoreCurrent Solutions Inc.

Ottawa, ON

- Reverse engineered automotive electronic modules to identify patent infringements, accelerating legal evidence collection
- Researched IC components, compiling findings into organized reports, improving accuracy in client cases
- Built a Python OpenCV tool mapping chip images to their positions on the PCB, streamlining analysis workflows

Dental Floater

June 2025 - August 2025

Kanata Periodontics

Ottawa, ON

- Maintained sterilization equipment, prepped operation rooms, and assisted chairside with strong organization and attention to detail, easing staff workload and improving patient flow

Etsy Shop Founder & Owner

April 2022 - April 2025

ClayRoomCo

Ottawa, ON

- Launched and scaled an online shop for handcrafted figurines, achieving 100+ sales and \$4,000+ revenue through creative design and marketing

PROJECTS

UW Crowd – Hack the North

Sept. 2025

- Developed real-time campus occupancy website using Raspberry Pis' to scan for Bluetooth Low Energy signals, helping students plan around crowds.

AI Voice Assistant

August 2025

- Built an AI voice assistant using Whisper and LLM Dialogue, enabling real-time conversations
- Modeled a 3D robot avatar that reacted to emotions, via a custom neural network mapping emotion metrics to joint angles, delivering human-like AI interaction

Synthetic Data Generator

July 2025

- Built a synthetic data generator to solve AI training data scarcity, with a pipeline that combines CTGAN generation and LLM enrichment to create large and flexible datasets

IB EE – Glider CFD Simulations

July 2024

- Modeled and ran CFD simulations on 22 gliders in SolidWorks and SimScale, analyzing aerodynamic performance to quantify glide efficiency trends

TECHNICAL SKILLS

Languages: Python, C#/C++, JavaScript, HTML/CSS

Frameworks & Tools: React, FastAPI, Flask, Three.js, AutoCAD, SolidWorks, SimScale, Docker, Git, AWS Cloud, Kaggle

Libraries: TensorFlow, PyTorch, OpenCV, Pandas, NumPy, Matplotlib, CTGAN, SciPy

AWARDS & ACHIEVEMENTS

Academic: 98% graduating average, 43/45 score on the IB Diploma

Governor General Academic Bronze Medal: Highest academic average, 250+ students

Leadership: Hockey Assistant Captain & Low Brass Section Leader

Colonel By S.S. Graduate Award: Academic, athletic, and leadership excellence

EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Applied Science in Mechatronics Engineering

2025 - 2030

Colonel By Secondary School

Ottawa, ON

Ontario Secondary School and International Baccalaureate (IB) Diploma

2021 - 2025