

Nicole Thiessen

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EXPERIENCE

Technical Analysis and Intellectual Property Assessment Intern <i>CoreCurrent Solutions Inc.</i>	July 2025 – August 2025 Ottawa, ON
<ul style="list-style-type: none">• 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 <i>Kanata Periodontics</i>	June 2025 - August 2025 Ottawa, ON
<ul style="list-style-type: none">• 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 <i>ClayRoomCo</i>	April 2022 - April 2025 Ottawa, ON
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• 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 <i>Bachelor of Applied Science in Mechatronics Engineering</i>	Waterloo, ON 2025 - 2030
Colonel By Secondary School <i>Ontario Secondary School and International Baccalaureate (IB) Diploma</i>	Ottawa, ON 2021 - 2025