

# Nicole Thiessen

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## EXPERIENCE

<b>Technical Analysis and Intellectual Property Assessment Intern</b> <i>CoreCurrent Solutions Inc.</i>	July 2025 – August 2025 Ottawa, ON
<ul style="list-style-type: none"><li>• Reverse engineered automotive electronic modules to identify patent infringements, accelerating legal evidence collection</li><li>• Researched IC components, compiling findings into organized reports, improving accuracy in client cases</li><li>• Built a Python OpenCV tool mapping chip images to their positions on the PCB, streamlining analysis workflows</li></ul>	
<b>Sterilization Technician &amp; Administrative Assistant</b> <i>Kanata Periodontics</i>	June 2025 - August 2025 Ottawa, ON
<ul style="list-style-type: none"><li>• Maintained sterilization equipment, prepped operation rooms, and assisted chairside with strong organization and attention to detail, easing staff workload and improving patient flow</li></ul>	
<b>Etsy Shop Founder &amp; Owner</b> <i>ClayRoomCo</i>	April 2022 - April 2025 Ottawa, ON
<ul style="list-style-type: none"><li>• Launched and scaled an online shop for handcrafted figurines, achieving 100+ sales and \$4,000+ revenue through creative design and marketing</li></ul>	

## PROJECTS

<b>Formula Electric (Tractive) Design Team – Member</b>	Sept 2025 - Present
<ul style="list-style-type: none"><li>• Contributed to battery pack architecture and BMS prototyping, through early-stage design and testing workflows</li><li>• Designed, 3D-printed and created technical drawings for structural mounts and frames for the electronics shelf using Solidworks</li><li>• Conducted lithium-ion cell and fuse testing, to validate pack safety and inform efficiency improvements</li></ul>	
<b>UW Crowd – Hack the North</b>	Sept 2025
<ul style="list-style-type: none"><li>• Developed real-time campus occupancy website using Raspberry Pis' to scan for Bluetooth Low Energy signals, helping students plan around crowds.</li></ul>	
<b>AI Voice Assistant</b>	August 2025
<ul style="list-style-type: none"><li>• Built an AI voice assistant using Whisper and LLM Dialogue, enabling real-time conversations</li><li>• 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</li></ul>	
<b>Synthetic Data Generator</b>	July 2025
<ul style="list-style-type: none"><li>• 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</li></ul>	

## TECHNICAL SKILLS

<b>Languages:</b> C++, Python, JavaScript, HTML/CSS
<b>Frameworks &amp; Tools:</b> SolidWorks, AutoCAD, React, FastAPI, Flask, SimScale, Docker, Git, AWS Cloud, Kaggle
<b>Libraries:</b> TensorFlow, PyTorch, OpenCV, Pandas, NumPy, Matplotlib, CTGAN

## AWARDS & ACHIEVEMENTS

<b>Academic:</b> 4.0 GPA, 43/45 score on the IB Diploma
<b>Governor General Academic Bronze Medal:</b> Highest academic average, 250+ students
<b>Leadership:</b> Hockey Assistant Captain & Low Brass Section Leader
<b>Colonel By S.S. Graduate Award:</b> Academic, athletic, and leadership excellence

## EDUCATION

<b>University of Waterloo</b> <i>Bachelor of Applied Science in Mechatronics Engineering</i>	Waterloo, ON 2025 - 2030
<b>Colonel By Secondary School</b> <i>Ontario Secondary School and International Baccalaureate (IB) Diploma</i>	Ottawa, ON 2021 - 2025