

# Giancarlo Giannetti

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## Experience

**NetProfitXL, Toronto — Software Developer** May 2022 – August 2023

- Developed back-end features in Python and SQL for ERP systems, customizing modules for client workflows
- Developed front-end interfaces with HTML, JavaScript, Jinja, and Zebra for documents, fillable forms, and webpages.
- Worked directly with clients on-site to determine system requirements.

**Kindred Systems Inc., Toronto — Robot Pilot (Co-op)** January 2019 – June 2019

- Assisted in training AI-driven robots.
- Repaired mechanical components of robots.
- Participated in industry-standard collaborative workflows.

## Education

**Ontario Tech University, Oshawa**

Master's Student, Computer Science (MSc) May 2024 – Present

- Expected to finish in September 2025
- Research focus on Hyperspectral Unmixing using transformer-based variational auto encoders

**Ontario Tech University, Oshawa**

Honours Bachelor of Science, Computer Science (BSc) September 2019 – December 2023

- Minor in Mathematics
- 3× Dean's List, 2× President's List

## Projects

**LDVAE-T:** Developed a Transformer-based Variational Autoencoder with a Dirichlet-constrained latent space for hyperspectral image unmixing, enforcing physical abundance constraints for more accurate material separation. Achieved state-of-the-art abundance estimation on benchmark datasets, outperforming existing methods.

## Skills

- Programming Languages: Python (including PyTorch), Java, C#, C++, Kotlin, SQL, HTML, JavaScript, VBA, C, MATLAB.
- Version Control, Docker, VMs.
- Experience in small and large teams with modern workflow methods.
- Strong communication and conflict-resolution skills.