

# Stefan de Lasa


 [destefy](#) |  [stefandelasa](#) |  [stefan.delasa@gmail.com](mailto:stefan.delasa@gmail.com) |  647-920-8916


## EDUCATION

University of Toronto, BAsC - Computer Engineering 2020-2025  
Cumulative GPA: 3.86 / 4.0 (Dean's Honour List) (4 years + Co-op year)


## WORK EXPERIENCE

**Software Development Intern**, *CentML*, Toronto, ON Sep 2023 - Aug 2024

CentML  develops tools to make machine learning (ML) inference and deployment more affordable and efficient.

- Sole contributor of **PyTorch** model remote compilation project (**Docker**, **AWS**, **k8s**) for deployment optimization on CentML's cloud-hosted, distributed platform.
- Designed ML model compilation caching system, to reduce costs and improve user experience (**Postgres**, **S3**).
- Enabled developer workflows with a local compilation server, which is hostable via public client (**Python**). 
- Developed a method to consistently hash ML models, including **LLMs** and **CNNs**.
- Added end-to-end testing support to CentML's platform. Wrote compilation server tests using this system.

**Undergraduate Research Student**, *James Elder*, *York University*, Toronto, ON May - Aug 2023

The Elder Lab  is investigating using **image semantics** (classification of objects in an image) to improve computer vision monocular **depth estimation**. This has applications in self-driving cars, robotics, and more.

- Formulated methods to apply Elder's model to enhance existing ML depth estimation solutions.
- Demonstrated **~20%** accuracy improvement over previous depth estimation models (**Python**).
- Awarded **Student Choice Best Presentation** at the Lassonde Undergraduate Research Conference.

**Software Engineer Intern**, *PointClickCare (PCC)*, Toronto, ON May - Aug 2022

PCC creates healthcare software to assist vulnerable populations with out-of-hospital care.

- Wrote front-end code to ease the editing of patient screening templates (**TypeScript**, **React**). Several internal users mentioned improved usability from my work.
- Extracted and sent user metrics to PCC's Pendo analytics and workflow improvements system.

## EXTRA CURRICULARS

**aUToronto Planning Team Member**, *UofT Self-Driving Car Team*, Toronto, ON Sep 2023 - May 2024

The aUToronto planning team develops navigation algorithms for autonomous vehicles.

- Created method (**C++**, **ROS2**) to find the fastest route to the nearest empty parking spot.
- Proposed and implemented a technique to reduce map density, improving planning performance **>20%**.


## SELECTED PROJECTS

**Programmable Compass** Apr 2023 

Built a compass that points to a programmable location. Used a **STM32 Microcontroller** connected to a GPS module via **USART** and **DMA**, to a Magnetometer via **I2C**, and to a LED ring display via **PWM**.

**Radio Transceiver**, *Hardware Design (ECE295)* Jan 2022 - Apr 2022 

Designed, built, and tested 2 radio transceiver components. Used **Altium** and **Multisim** to design a limiter, filter, mixer and amplifier. Presented the team's results to both technical and non-technical audiences.

**OS161**, *Operating Systems (ECE344)* Jan 2023 - Apr 2023 

Built upon the OS161 operating systems by implementing **memory management** (page reclamation, swapping, demand paging), **system calls** (waitpid, fork, exec) and **synchronization basics** (locks, condition variables).

## SKILLS

Programming: Python, PyTorch, C, C++, MATLAB, JavaScript, TypeScript, React, ARM Assembly  
Dev Tools: Git, VSCode, Docker, AWS, K8S, SQL, Jenkins  
Communication: LaTeX, Google Workspace, MS Office, Outlook

## OTHER

Citizenship: Canadian and American  
Languages: English (Native Proficiency), French (Native Proficiency), Polish (Beginner)