# Stefan de Lasa

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#### EDUCATION

University of Toronto, Bachelor of Applied Science & Engineering - Computer Engineering 2020-2025 Seasonal GPA: 4.0 / 4.0, Cumulative GPA: 3.81 / 4.0 (Dean's Honour List)

#### SKILLS

Programming Languages: C++, C, Python, MATLAB, Javascript, Typescript, React, ARM Assembly

Programming Tools: Git, VSCode, IntelliJ, Jira, Bitbucket, Jenkins, Cypress

Hardware Tools: Verilog, Multisim, ModelSim, Altium, Typhoon

## WORK EXPERIENCE

## Software Engineer Intern, PointClickCare (PCC).

May - Aug 2022, Toronto, ON

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

- Migrated the US "Care Insights" application to Canadian markets. Configured a backend **Spring Boot** controller to determine session permissions via API calls.
- Used **React** and **Typescript** in a **Agile development** team to develop front-end features to ease modification of patient screening templates. Several users mentioned improved usability from this.
- To improve patient screening template effectiveness, I extracted session information about which end-user workflow suggestions were followed or ignored. I then sent this information to PCC's Pendo analytics system for subsequent analysis and template refinement.
- Used Cypress and Kotlin to write service/unit level tests to ensure UI and data pipeline integrity.

Data Management Intern, Independent Electricity System Operator. Jun - Aug 2021, Toronto, ON As the Crown corporation responsible for operating/directing the electricity market in Ontario, the IESO gathers and monitors data from industrial customers throughout the province.

- Leveraged my technical knowledge to propose how machine learning could improve existing processes.
- Highlighted benefits of **supervised learning** to detect data anomalies using IESO's historical datasets.
- Worked with peers to review Meter Service Provider data, ensuring correctness of meter billing reports.

#### Research Assistant, York University.

Jul - Aug 2018, Toronto, ON

Permeable pavements are a promising method to control stormwater run-off. Dr. Usman Khan's group is investigating different **ML techniques** from mobile device input to categorize different paved surfaces.

- Conducted experiments to gather important properties of different paved surfaces.
- Analyzed and inputting results into a database for subsequent training by a ML model.

# PROJECTS

#### Messaging App, Computer Networks Class

Nov - Dec 2022 - Link

Used **TCP socket programming** in **C** to make a client and server program that used a system of acknowledgements to communicate. The program:

- Let users create and join sessions, where they could broadcast messages to other users.
- Implemented features like private messaging, listing active users, and password-protected login.

## Dr. Mario game, Computer Organization Class

Jan - Apr 2022 - Video Demonstration

I recreated the popular NES game, Dr. Mario, on a **DE1-SoC** board using **C** and the CPUlator simulator. Dr. Mario is a tetris-like game where you move falling pills to eliminate viruses.

- Designed algorithms to control inputs, collisions, and game behaviour.
- Detected **interrupts** from a keyboard and timers.

#### OTHER

Citizenship: Canadian and American

Languages: English (Native Proficiency), French (Native Proficiency), Polish (Beginner)