Stefan de Lasa

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Education

Faculty of Applied Science & Eng., BASc - Computer Engineering, University of Toronto, 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. Permissions were then used across different application workflows (e.g., exposing links, etc.)
- Worked in a 10 person **Agile development** team on a suite of applications for nursing facilities.
  - Used **React** and **Typescript** to develop front-end features to ease creation/modification of patient screening templates. Several internal users mentioned improved usability from this work.
  - 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-level and unit tests to catch regressions and ensure front-end UI and data pipeline integrity.

Meter 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 and conduct research into how **machine learning** could be used to 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.

Projects

Messaging App, Nov - Dec 2022 - Link

I used socket programming and **TCP connections**, to make a client and server program that used a system of acknowledgements. 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, 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 the pills, collisions, and detecting four of the same colour in a row.
- Detected **interrupts** from a keyboard and timers.

Other

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