# Sierra Wyllie

89 Chestnut St.
Toronto, Ontario, CA
647-613-2126
sierra@wyllie.net
www.syntelliga.net

## PROFESSIONAL SUMMARY

I am a second year engineering science student at the University of Toronto, and currently a member of the CleverHans Lab under Nicolas Papernot at University of Toronto and the Vector Institute. My research interests include fairness and security for trustworthy ML.

## MEMBERSHIPS

Vector Institute
CleveHans Lab
NCWIT

## EDUCATION

**University of Toronto**
Toronto, ON
Bachelors of Applied Science
2020–2025
Machine Intelligence Major
GPA: 3.64/4

**Gatton Academy of Math and Science**
Bowling Green, KY
HS Diploma
2018–2020
GPA: 3.94/4

## SKILLS

- **Software:** ARM Assembly, C, Python, Java, Matlab, Mathematica, Bash, Unix, LaTeX, git, machine learning, deep learning
- **Hardware:** Raspberry Pi, NVIDIA Jetson, soldering
- **Professional:** Creative problem solving, team work and management

## WORK EXPERIENCE

**Research Intern**
**University of Toronto, Vector Institute**
May 2020 – Present

Investigating fairness in machine learning, mentored by Prof. Nicolas Papernot in the CleverHans lab.

**Electrical and Software Intern**
**Space Tango**
June – August 2020

Assembled electrical components currently aboard the International Space Station for client R&D projects. Introduced artificially intelligent and autonomous solutions including UIs, fluid detection and direction tracking, and phase microscopy.

**Research Student**
**Western Kentucky University**
January 2018 – May 2020

Built intrusion detection system for drones using ML. Presented at regional conferences, such as ACM Mid-Southeast, and won best undergraduate poster. Also conducted a survey of metaheuristics for load balancing in WKU Cloud Lab's Bioinformatics Cloud. Presented at WKU Student Reach Conference in March 2019.

## RECOGNITIONS

- **Grants:**
  - **ESROP** from Engineering Science at University of Toronto for fairness in ML research. ($6,000 CAD)
  - **FUSE** from Western Kentucky University for drone security research. ($3,000 USD)
  - **RIG** from Gatton Academy for drone security research. ($3,700 USD)
- **National Honourable Mention** for aspirations in computing from the National Center for Women in IT.
- **Publication:** A. White, P. O'Boyle, S. Wyllie, and M. Galloway, "The Impact of DDoS Attacks on Application Containers, System Containers, and Virtual Machines," in 17th International Con-ference on Information Technology–New Generations (ITNG 2020).