

# Ding Guozhen

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## EDUCATION BACKGROUND

**University of Toronto St. George, Canada**

09/2019-06/2024

**BASc - Computer Engineering (In progress)**

**cGPA:** 3.98

## WORKING EXPERIENCE

**Rocscience Inc., Toronto, ON, Canada**

05/2021 - 08/2021

Software Developer Intern

- Developed an easy-to-use, zero-installment web 3D-project review application
- Analyzed the extracted file format from RS3(i.e. the CAD software sold by Rocscience)
- Adapted Three.js framework to the internal file format generated by RS3

**Intel Programmable Solutions Group, Toronto, ON, Canada**

05/2022 - 09/2023

Software Engineer Intern

- Enhanced Intel's PTC (Power & Thermal Calculator) infrastructure to be more efficient for developers
- Implemented test infrastructure to increase the coverage for the overall codebase
- Advanced Intel's Quartus Power Analyzer by bringing up new device support

**Toronto Systems Security Lab**

05/2021 - Until Now

Research Assistant

- Enhanced the Zombiefuzz framework by supporting buffer content manipulation
- Developed a standalone C/S application fuzzer by fuzzing the buffer at runtime using LibAFL

## SKILL STACK

- |                         |                   |                     |
|-------------------------|-------------------|---------------------|
| • C/C++/C#              | • Python2/Python3 | • Altium PCB Design |
| • LLVM/Clang            | • ARMv7 Assembly  | • Git/Perforce      |
| • Verilog/SystemVerilog | • Linux/UNIX      | • Rust              |
| • JavaScript            | • OpenGL/WebGL    |                     |

## PROJECTS

### Individual projects:

- An optimized Fuzzer targeted to the applications using stateful network protocol based on LLVM and AFL
- Reproduction of Learning to Predict 3D Objects with an Interpolation-based Differentiable Render

### Group Projects

- Smart Door Lock(with RSA algorithm) implemented on DE1-SoC system with UART peripherals
- A fishing game(with PS/2 and VGA I/O) implement on DE1-SoC system (Based on ARMv7)
- A C++ GUI Map application using OpenStreetMap and ezgl.

## ACADEMIC SCHOLARSHIP & COMPETITIONS

### Academic scholarships:

- 05/2021 Edith Grace Buchan Undergraduate Research Fellowship
- 10/2020 Edward S Rogers Sr Department of ECE Top Student Award at University of Toronto
- 10/2020 The Wallberg Undergraduate Scholarships at University of Toronto
- 01/2020 2019-2020 Dean List of ECE at University of Toronto

### Competitions attended:

- (Member of Team A\*0\*E) 4th Place at Las Vegas - DEFCON 27
- Sixth Place in the MEEPWN CTF Information Security Contest World Final 2018

## ADDITIONAL SKILLS AND EXTRACURRICULAR ACTIVITIES

**LANGUAGES:** Mandarin Chinese (Native), English (IELTS 7.0)

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**Extra Activities Experience:**

- Group Leader in the Engineering Strategy and Practice Develop Group (ESP I & II Course)
- Team Leader of CTF Team 0x194