Dongchan Lee

Address: 121 University Ave. East unit 81, Waterloo, Ontario, Canada

E-mail: d298lee@uwaterloo.ca   **Contact No.:** +1 416 820 3001   **Github:** https://github.com/shinelee2001

SKILLS and INTERESTS

Technical Skills: Linux, shell script, git/github, C, C++, Python(Flask), JavaScript, HTML, CSS.

Interests: Mathematics (Abstract Algebra), information security, web application development

EDUCATION

2B at the Faculty of Mathematics, University of Waterloo   **Fall 2020 - Present**
- Obtained 'Term Distinction' and 'Excellent Standing' at the end of every study term.
- Took advanced math courses during the first year.
- 90.75% Cumulative Average in the latest term.

EXPERIENCES

Mandatory Military Service (REPUBLIC OF KOREA)   **Sep 2021 - Mar 2023**
- Assisted in maintaining and training reserve forces at a battalion.
- Performed outstanding results in both practical and theoretical assessments during major training sessions and received two citation awards from the battalion command and the division commander.

Waterloo Experience Accelerate Program   **May 2021 - Aug 2021**
- Assisted the team in the website development focusing on the user-friendly responsive web design using HTML, CSS and JavaScript.

SIDE-PROJECTS

Planarity Game *https://shinelee2001.github.io/mysite/planarity/planarity.html*
- Implemented an algorithm for generating random untangled planar graph on canvas using JavaScript with the features supporting moving nodes to untangle graph.

Malware Detector https://github.com/shinelee2001/Webshell-Detection
- Implemented webshell detector in C++. It scans a given directory, checks files with extension .php, .php3 and .phtml and looks for potentially exploitable function calls.
- Implemented web-crawling feature using python that automatically collects known hashed malwares and stores in output.txt file which is then used for comparing with targeted files.
- Using Sqlite3, the known malwares information and the detected malwares are stored and managed in database.

Web Application Firewall *https://github.com/shinelee2001/WebApplicationFirewall*
- Implemented WAF in C++ that operates on Windows using `<winsock2>`.
- It stays between the client and the (web) server and analyze the HTTP requests from the client for the possible SQL injection and DoS attack.

Studying Helper App (Web App) *https://github.com/shinelee2001/MetaLearner-Flask*   **Jan 2024 - Present**
- Implemented studying helper application with the main feature of adding notes (from the webpage and from the excel files) and displaying the notes every 1, 4, 7, and 14 days. Users can also upload their own files (stored in '/uploads' directory) and see the list of uploaded files.
- Utilized Flask and SQLite for the back-end. Also, from the back-end it monitors the '/uploads' directory using the webshell dectector executable written in C++ to check if users upload webshells.

EXTRA-CURRICULAR ACTIVITIES

Personal Website via Github *https://shinelee2001.github.io/mysite*

Certificates
- Microsoft Office Specialist Master

National Technical Qualification Certificates (in South Korea)
- Computer Specialist in Spreadsheet & Database Level-1
- Linux Master Level-1

Penetration Testing   **Mar 2023 - Aug 2023**
- Practiced typical web hacking skills such as Command/SQL injection, XSS, CSRF via web application DVWA.
- Studied the structure of a database and various types of SQL injection via webhacking.kr.
- (*https://shinelee2001.github.io/mysite/web_hack/penetration_testing.html*) Internally assessed fundamental scenario-based penetration tests where the target(weak) environments were brought from www.vulnhub.com.

Chess Club   **Sep 2023 - Present**
- Developed a thorough and logical way of building up an idea.
- Socialized and had opportunities to shared various experience by facing people of various majors.