# **Dongchan Lee**

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### **SKILLS and INTERESTS**

**Technical Skills:** Linux, shell script, git/github, C, Flask(Python), 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' at the end of every study term.
- Took advanced math courses during the first year.
- 91% 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.

File Uploader App <a href="https://github.com/shinelee2001/File-Uploader">https://github.com/shinelee2001/File-Uploader</a>

- Implemented file uploading API where client can upload files and view the list of those uploaded files.
- Utilized express, multer and fs for handling file exchanges between server and client and utilized cors package to meet the cross-origin-resource-policy.

## Communication App (Mobile App) https://github.com/shinelee2001/UniLink

- Developed on Android Studio using Java where people post and share images, notes and comments.
- Implemented with the concept of Object Oriented Programming.
- Utilized Firebase for handling back-end side (authentication and database).

## Studying Helper App (Web App) <a href="https://github.com/shinelee2001/MetaLearner-Flask">https://github.com/shinelee2001/MetaLearner-Flask</a> Jan 2024 - Present

- Implemented studying helper application with the main feature of displaying studying contents every 1, 4, 7, and 14 days.
- Utilized Flask and SQLite for the back-end.

### **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.
- (<u>https://shinelee2001.github.io/mysite/web\_hack/penetration\_testing.html</u>) Internally assessed 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.

# Mathematics Club Aug 2018 - Dec 2018

- Studied logics and proof techniques that are essential in mathematics and applied them to prove various theorems on a textbook.
- Developed creativity and mathematical thinking by exploring various math-related paradoxes.
- Studied group theory in depth and explored the algorithm of RSA cryptosystem and implemented own word-to-word cryptosystem based on ElGamal algorithm using C language.