

## Skills

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**Languages:** JavaScript, Typescript, C++, C, C, Python, Java, HTML, CSS

**Frameworks/Libraries:** Angular, React, Next.js, JQuery, Three.js, Express.js

**Applications:** Unity, Git/GitHub, VirtualBox, Docker, PostgreSQL, Mysql, MongoDB

## Project Experience

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### Personal Web-Page (2023. Fall)

*Personal project: Create personal portfolio web*

- Using Next.js and React to design web-site with Typescript
- Publish the web-site with free server source

### Computer Web Graphics (2023. Summer)

*Personal project: Create 2d Pacman game + 3d Objects*

- Using WebGL api, which was used on the actual website, learned the elements that could be more interesting to users in frontend
- Implemented that the appearance and position of the graphic object changes according to the input values of the keyboard and mouse
- Implemented a function that calculates collisions between objects to make a pacman game that can be operated in practice

### Server-side + Client-side Development (2023. Winter)

*Group project : create community web-site*

- Using Html, CSS, Javascript, Typescript, NodeJS, Postgresql, Docker, Angular, JQuery
- Implemented UI through JQuery library and Angular that I have used through web1 class
- Built a database and create a table to keep records of user login history, chat log, and users' posts
- Used external map API to store user's location and find nearby users
- Built a server that can access https request with Google Cloud Platform (GCP)

### Java project with Object-Oriented Programming (2022. Fall)

*Group project : create 2d maze game*

- Using Java and Version control with git
- Wrote features for random maze generator with binary search algorithm
- Created video that appeal to users and explain game features
- Found potential errors as a user's position and then fixed the error
- Practice for optimizing code at the end)

### **Client-side Development (Web1) (2022. Fall)**

*Personal project: Create frontend web page*

- Using Html, CSS, Javascript, Typescript, Angular, JQuery
- Using local and session storage in the web, save the user request while the web is running

### **Mechatronics Design (2022. Spring)**

*Group project : build robot design to solve problem and apply the code*

- Using C, and robot kits
- Identified problems and resolve them within a given time to solve a given task (maze solve, line detector, and barcode reader)
- Selected the best option through communication with group members to improve problem solving

### **Unity 2D games (2022. Spring)**

*Personal project: create 2d games with C*

- Created various 2D games by deciding on the design and operation of game objects with Unity
- Registered with the Google Play Store to learn how to collect data and information used by real users
- Learned about the concept and processing of revenue creation using Google Advertising API

## **Education**

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### **Simon Fraser University, Burnaby, BC (2022. Spring Present)**

*BSc. Computer Science – Software System*

### **Douglas College, New Westminster, BC (2020. Fall 2021. Fall)**

*Computing Science*

### **Soongsil University, Seoul, South Korea (2016. Spring 2018. Fall)**

*Material Engineering*

## **Experience**

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### **Lab assistant (2017. Spring - 2018. Summer)**

- Participated as a teaching assistant for an experimental class for freshmen
- Organized and analyzed the contents of research materials
- Regular attendance at weekly meetings to provide ideas for research direction and variable settings

### **Chemistry tutor (2016. Spring - 2017. Fall)**

- Provided quality information through the organization and analysis of study materials for a study group
- Organized and analyzed the contents of research materials