# Seungwoo Ko

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## EDUCATION

## University of Waterloo

Waterloo, ON

Bachelor of Arts in Mathematics

Sep. 2022 - Present

## MILITARY SERVICE

### Republic of Korea Army (ROKA)

South Korea

Active Duty, Full Military Service

Sep. 2023 - Mar. 2025

## EXPERIENCE

#### **Assistant Teacher**

Jun. 2021 – Aug. 2021

Grace English Academy

Hwaseong, Gyeonggi, South Korea

- Assisted in instructional delivery across preschool to middle school levels, adapting to diverse classroom environments.
- Collaborated with lead teachers on lesson planning and implementation to ensure continuity in instruction.
- Facilitated student engagement through interactive activities and provided academic support as needed.
- Maintained a well-managed, supportive classroom environment conducive to learning.

## **English-Korean Translator**

July 2022 - Aug. 2022

International Volunteer Organization (IVO)

Yongin, Gyeonggi, South Korea

- Translated English documents to Korean for educational purposes.
- Translated a Korean job posting announcement into English.

#### Projects

## Isaac Item Detection App | Python, OpenCV, PyAutoGUI, NumPy

Mar. 2025 - Present

- Built an image recognition tool to detect pedestal items in The Binding of Isaac gameplay screenshots
- Applied template matching and filtering techniques to identify and remove duplicate detections
- Designed modular code to support integration of item lookup and description rendering

#### TECHNICAL SKILLS

Languages: C/C++, JavaScript, HTML/CSS, Python, Bash

Frameworks: JQuery, BootStrap

Developer Tools: VS Code, Visual Studio, Vim, Ubuntu, Git

Libraries: NumPy, OpenCV, PyAutoGUI