## **Instruction on Windows**

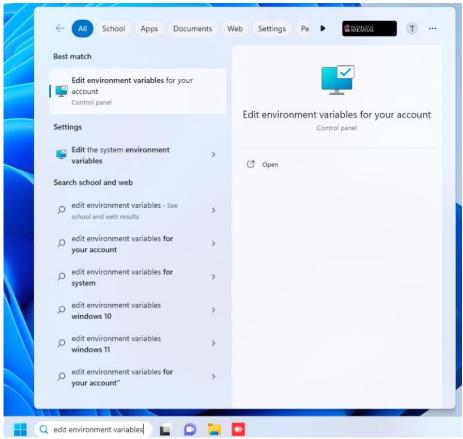
## 1. Clarification

The following instructions have been tested successfully on Windows 10 and Windows 11. They are designed specifically for homework in the Algorithms class. This document will describe how to install MingGW GCC/G++ 8.1.0 and OpenCV 3.4.13.

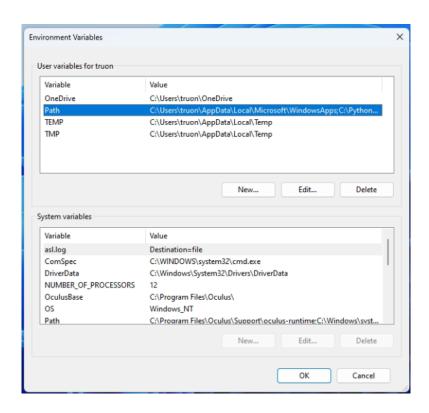
## 2. MinGW and OpenCV Installation

MinGW is a C/C++ compiler, a free and open-source software development environment that runs on Windows. OpenCV is an open-source library of programming functions mainly for real-time computer vision, originally developed by Intel.

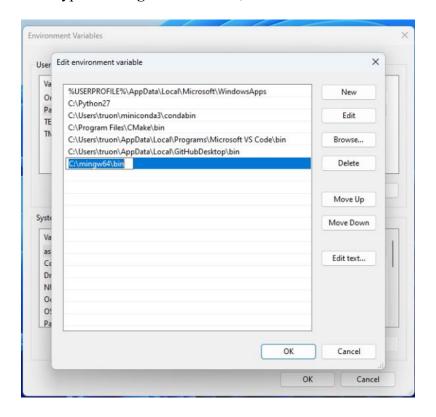
- Step 1: Download the pre-compiled MinGW and OpenCV from here: MinGW-OpenCV.zip
- Step 2: Extract the compressed file. There are two folders named mingw64 and opency.
- **Step 3:** Copy these two folders into C:\
- **Step 4:** Search "Edit Environment Variables for Your Account" in the search bar. Then, click on "Edit Environment Variables for Your Account".



**Step 5:** Select Path and click Edit.



Step 6: Click New and type C:\mingw64\bin. Then, Click OK on the current window.



Step 7: Click OK on the current window.

Step 8: Modify the Makefile in your homework as follows:

MINGW BIN=C: /mingw64/bin

CFLAGS=-I\${PROJECT\_DIR}/include/

CC=\${MINGW\_BIN}/gcc.exe CXX=\${MINGW\_BIN}/g++.exe

OPENCV DIR=C: /opencv/build/install

Step 9: Copies the following files <code>libopencv\_imgcodecs3413.dll</code>, <code>libopencv\_core3413.dll</code>, <code>libopencv\_highgui3413.dll</code>, and <code>libopencv\_imgproc3413.dll</code> from <code>C:\opencv\build\install\x64\mingw\bin</code> to your homework folder.

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Name	Date modified	Туре	Size	
assets assets	8/31/2023 3:50 PM	File folder		
🛅 bin	8/31/2023 7:19 PM	File folder		
🛅 include	8/31/2023 3:50 PM	File folder		
arc src	8/31/2023 3:50 PM	File folder		
libopencv_core3413.dll	8/31/2023 7:08 PM	Application exten	7,107 KB	
libopencv_highgui3413.dll	8/31/2023 7:10 PM	Application exten	398 KB	
libopencv_imgcodecs3413.dll	8/31/2023 7:10 PM	Application exten	5,867 KB	
libopencv_imgproc3413.dll	8/31/2023 7:09 PM	Application exten	11,321 KB	
Makefile.linux	8/31/2023 3:10 PM	LINUX File	1 KB	
Makefile	8/31/2023 7:19 PM	WINDOWS File	1 KB	

**Step 10:** Compile your homework. Open terminal and go to your homework folder. Then, type **mingw32-make**.

