Son Vu

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Available to start for Co-op Spring of 2023

Education

University of Pittsburgh, Swanson School of Engineering Expected Graduation: December 2024
Bachelor of Science in Computer Engineering GPA: 3.34
Dean's Honor List - Spring 2022

Relevant Coursework

August 2019-Present

- Problem Solving with C++
- Microelectronic Circuits
- Embedded Processors and Interfacing
- Data Structures and Algorithms C++
- Signals, Systems and Probability

Skills

- C++, Python, HTML, CSS, JavaScript, Assembly, MATLAB, VirtualBox, Web development, FPGA programming, Project Management, Sketching, Vietnamese

Experiences

Vietsoftpro Joint Stock Company, Ha Noi, Vietnam *(Intern)* March 2021-June 2021

- Conducted market price research on technological products and solutions regarding virtual reality and 3D representation
- Created a 3D layout of the Temple of Literature using SketchUp
- Worked with Project Department team to communicate with historical sites on product placement

Ho Chi Minh Museum, Ha Noi, Vietnam *(Intern)* June 2021-July 2021

- Translated documents and interpret zoom meetings and workshops with business partners

SHREC-SURG Program *(Research)* May 2022-July 2022

- Researched pre-image-processing technique and possible hardware accelerations via FPGA to reduce latency in hand segmentation
- Created a Xilinx Vitis installation guide version 2020.1 on VirtualBox Ubuntu 18.04.4
- Researched latency reduction via kernel accelerations on FPGA
- Conducted software and hardware emulation in C/C++ for Gaussian and Sobel filter on Xilinx Vitis development platform using OpenCV and Vitis Vision library

Personal Projects

Personal Website

- A website portfolio built using mainly HTML and CSS as framework and Java to handle functions of the navigation bar

Virtual Mouse via Hand Gesture Application

- An application programmed in PyCharm using Python to capture live video inputs of the user's hand gesture through a webcam using OpenCV
- The program then uses the hand-recognition framework by MediaPipe to track the user's gesture, hand's landmark and localize 21 coordinates of the hands
- Using the 4^{th} (the thumb's tip) and the 8^{th} (the index's tip) coordinates, the mouse cursor moves accordingly to the middle of these two coordinates. When the space between two points falls below a certain threshold, it registers as a click command