

# PHILIPPE VO

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## SUMMARY OF SKILLS AND QUALIFICATIONS

**Operating Systems** | Windows • Mac OS X

**Applications** | Microsoft Office: Word • Excel • PPT • Xcode

**Programming** | C++ • MATLAB • Python (beginner)

**Platforms** | Arduino • QT (GUI) • Matlab • Fusion 360

**Languages** | Spoken & Written • French | Spoken & Written • English | Spoken • Vietnamese

**Licenses & Certifications** | Valid driving permit

## EDUCATION

**Bachelor of Engineering - Computer Engineering Co-op** 2017- 2020 (Expected)

Concordia University, Montreal, QC

- Member of the Institute for Co-operative Education
- GPA 3.65/4.30

**Mechanical Engineering (65.25 credits)** 2015-2016

Concordia University, Montreal, QC

**DEC in Applied Sciences** 2015

Champlain College, St-Lambert, QC

## WORK EXPERIENCE

**Research Assistant** Sept 2016- Sept 2017

Concordia University, Montreal, QC

- Worked in a research laboratory specialized in Digital Microfluidics (liquid handling technology).
- Created three software systems, a GUI (Graphical User Interface) to control a Digital Microfluidics automation system, an automatic absorbance reader (AIMS) and an image-based feedback system for Digital Microfluidics.
- Collaborated with other lab members coming from other fields such as Biology, Electrical and Material Engineering.
- Published my research project on my image-based feedback system in the “Lab on a Chip” journal.

Link to my research paper abstract: <http://pubs.rsc.org/en/content/articlelanding/2017/lc/c7lc00826k#!divAbstract>

Technical Skills used : GUI programming, embedded systems programming, computer vision.

Skills acquired: research, teamwork, time management, communication, planning.

**Busboy** Sept 2014- Oct 2014

L'Étoile DIX30, Brossard, QC

- Worked closely alongside a group of barmen to manage 4 small bars inside a comedy theatre capable of serving about 200 people.
- The biggest task confined to me was the preparation of all the liquors and beers of the 4 bars given a short time lapse just before showtime.
- Other tasks consisted of cleaning all the drink glasses, maintaining inventory of all the liquors and beers and assisting the barmen during peak time such as intermissions.

Skills acquired: teamwork, time management, communication, planning.

## PROJECTS

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### Design of a Graphical User Interface for Digital Microfluidics (Academic) 2017-present

Concordia University, Montreal, QC

Objective : To build a Desktop application to allow easy manipulation of a Digital Microfluidics automation system using Matlab. (ie. moving droplets, reading sensors , ...)

- Learned how to operate a micro controller (Arduino).
- Learned about programming Graphical User Interfaces and embedded systems.
- Presently being used in the Shih lab for their Digital Microfluidics automation systems.
- Currently creating a new version of this application using QT (C++).

**Skills acquired :** research, teamwork, problem analysis

**Technical skills :** basic electronics, micro controllers (Arduino), Matlab, GUI programming

**Link for more information:** <https://github.com/shihmicrolab>

### Design of an Image-based Feedback System for Digital Microfluidics (Academic) 2017

Concordia University, Montreal, QC

Objective : To use a camera to track and move droplets on a Digital Microfluidics chip.

- Created an algorithm to track and move droplets by implementing computer vision.
- Published a research paper regarding this project in the “Lab on a Chip” journal.
- Chosen to go to the uTAS Conference to present this project and was nominated for best poster presenter.

**Skills acquired :** research, problem analysis, teamwork

**Technical skills :** Matlab, computer vision

**Link to my research paper abstract:** <http://pubs.rsc.org/en/content/articlelanding/2017/lc/c7lc00826k#!divAbstract>

## AWARDS & DISTINCTIONS

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### Employers' Choice Award (Co-op Institute at Concordia University)

May 2017

Co-op awards committee reviewed all nominations from their employer contacts and I was the recipient for this award in 2017.

Nominated by my employer Steve Shih from Concordia University.

### USRA Scholarship (NSERC)

January 2017

Undergraduate Student Research Award given by the Natural Sciences and Engineering Research Council of Canada based on candidates academic record and research aptitudes.

### Concordia Entrance Scholarship (Concordia University)

January 2015

### Excellent academic achievement (Champlain College)

December 2016

### Student-Athlete award (Champlain College)

December 2016

## INTERESTS

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**Experience Abroad** Vietnam • United-States • Switzerland • Hong Kong • Thailand • Morocco • France

**Sports** Ski • Tennis • Badminton (Multiple medals won throughout 2008 to 2012)

**Passions** Robotics • Online Gaming • Piano (8 years)