Philippe Vo

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• https://github.com/philippeVoNam

Education

2017-2021 **BSc, Computer Engineering**; Concordia University (Montreal, QC)

Member of the Institute for Co-operative Education

GPA 3.38

2015-2016 **BSc, Mechanical Engineering**; Concordia University (Montreal, QC)

65.25 credits

2015 **DEC, Applied Sciences**; Champlain College (St-Lambert, QC)

Experience

Head of Software & Co-Founder :

DropGenie (Boston, MA)

September 2018-Present

- Co-Founded DropGenie, a biotech startup working at the intersection of biology and engineering to streamline gene editing pipelines.
- Principle role was to overseer all matters in the company relating to software.
- Developed multiple in-house applications from scratch to run the digital microfluidics hardware system.
- Developed an application that allowed our digital microfluidics hardware system to move droplets of liquid.
- Help developed with an external consultant, a website application to be used by clients of DropGenie.
- Lead the development of an in-house database infrastructure to be able to store and use the data produced, efficiently.
- Technical Skills used : GUI programming, embedded systems programming, multi-threading, database design.
- Skills acquired: research, teamwork, time management, communication, planning, managing, working with consultants.

Research Assistant :

Concordia University (Montreal, QC)

September 2016-2017

- 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**
- Technical Skills used : GUI programming, embedded systems programming, computer vision.
- Skills acquired: research, teamwork, time management, communication, planning.

Hackathons

ConUHacks 2019

Concordia University (Montreal, QC)

- Participate in the annual Concordia Hackathon
  - Built an application that would use a machine learning based image analyzer to detect if a image sent is inappropriate or not.
  - If an image was detected as inappropriate, it would be replaced with another image.
  - This is to protect the viewer from receiving any unsolicited images.

Projects

Music Player with Synced Lyrics (Pixel Singer) (Personal)

Home (Montreal, QC)

- Objective : Make a music player that could print out the lyrics in sync with the song.
- Technical skills : working with APIs
- Skills acquired : problem analysis
- `https://github.com/philippeVoNam/pixel-singer`

Design of a Graphical user Interface for Digital Microfluidics (Academic)

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.
- Technical skills : basic electronics, micro controllers (Arduino), Matlab, GUI programming
- Skills acquired : research, teamwork, problem analysis
- **link** for more information

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

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.
- Technical skills : Matlab, computer vision
- Skills acquired : research, problem analysis, teamwork
- **link** to my research paper abstract

Awards and Disctinctions

Employers’ Choice Award

May 2017, Co-op Institute at Concordia University

- 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

Jan 2017, Natural Sciences and Engineering Research Council of Canada

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

Merit Scholarship Program in Information Sciences, Computer Engineering and Construction of Computers, and Electrical, Electronic and Communications Engineering

Jun 2021, Government of Quebec

Concordia Entrance Scholarship

Dec 2016, Concordia University

- A scholarship given to entering students at Concordia University which have been able to distinguish themselves academically.

Extra Section

- 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)