## **Pham Trung Viet**

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#### **EDUCATION**

## Singapore University of Technology and Design (SUTD)

May 2018 to present

- Bachelor of Engineering (Information System Technology and Design)
- GPA 4.3/ 5.0, expected Magna Cum Laude
- SUTD Undergraduate Merit Scholarship
- Expected Date of Graduation: August 2021

#### **WORK EXPERIENCES**

## LionsBot International Pte Ltd Part-time Software Researcher

Singapore

## September 2019 to Present

• Constructed a computer vision pipeline for a real-time image segmentation module to improve robot autonomous navigation in a research group of 2 with the guidance of senior developer using Tensorflow and ICNet model.

## Software Engineer Intern

May 2019 to August 2019

- Developed a GUI that allows the user to have easy and intuitive access to the control of different components of the robots. The package was programmed for ROS using Python and UI design platform Qt Design.
- Redesigned the mapping robot with the integration of 360-degree LiDAR with improved scanning frequency to enhance the mapping function of the robot.
- Developed a ROS driver and visualisation for the 4 planes LiDAR for potential future utility.

#### Part-Time Engineer

November 2018 to April 2019

- Programmed C/C++ code for Arduino and Teensy for primary testing and calibration of different hardware components such as ultrasonic sensors, stepper motors, light-switch, etc.
- Assemble hardware, wiring and carrying out real-time test on the robot with each hardware components.

#### 9thWonder- Nha Trang Branch

Vietnam

## Web Development Intern

January 2018

- Developed front end components such as UI/UX for website based on templates given by clients.
- Coded using HTML, CSS and JavaScript.

#### Institute for Infocomm Research @ A\*STAR

Singapore

#### Work attachment

December 2016

- Designed and programmed rehabilitation game for physically impaired patients, along with seniors researchers.
- Utilized advanced motion and behaviour sensors such as eye tracker Tobii Eyex, Myo armband and Leap motion in order to create hand-eye coordinate exercises in Unity 3D environment.
- Utilised basic machine learning tool to classify users' behaviour to determine the accuracy of the users' action.
- Shortlisted and presented the product at Singapore Science and Engineering Fair (SSEF) 2017.

#### ACADEMIC PROJECTS

## Introduction to Information Systems & Programming (SUTD)

Singapore

September 2019 to December 2019

- Android App for events and networking
- Worked in a group of 6 members to develop an Android App that helps event's registration and attendance process while allowing users networking through selfies with the help of facial recognition.
- Implemented python dlib facial recognition library to extract user's face encode for the app's attendance checking and networking features.
- Incharge of HTTP POST Request to communicate between the App and the Server for login, registration and networking processes.

# Undergraduate Research Opportunity Program (SUTD) Underwater Bio-inspired Mobile Robots

Singapore May 2019 to Present

- Assisted senior researcher in the enhancement of the hardware and the circuit of the robot.
- Implemented inertial measurement unit (IMU) into a stingray soft robot to navigate underwater in a research group
  of 2

# Introduction to Design (SUTD) Interactive game for wearable device, Team leader

Singapore

October 2018 to December 2018

- Designed an augmented reality game concept for wearable device to encourage player to excercise more often, worked in a team of 5 members.
- Built the prototype using Arduino and various sensors such as accelerometer, touchscreen LCD, RFID sensors and MP3 player.

### **EXTERNAL COMPETITION**

## **ROBOCON International Design Contest**

Japan

**Robotic Competition** 

August 2018

- Represented Singapore University of Technology and Design to participate in the international competition which
  required to build robots to compete against one another.
- Built the robots using basic Arduino and various components.

# Singapore Science and Engineering Fair Competition

Singapore

March 2017

- Developed a rehabilitation game for physically impaired patient using Unity 3D and C# in a team of 2.
- The project was short-listed against almost 300 projects into the final presentation round.

### **CO-CURRICULAR ACTIVITIES and VOLUNTEER EXPERIENCES**

SUTD Boxing Club 2018 to present

#### Vice president

- Organized university inter martial art sparring event for SUTD students together with the university's other martial art committee.
- Planned and led the weekly practices for the club consisting of 10 members to improve their strength and endurance and boxing skills.

### **MINDS Towner Gardens School**

Jan to May 2017

- Taught a class of 20 children with special needs essential daily activities and concepts and played games with them.
- Organized 1/2 day event to teach the children how to make breakfast and play sports with them.

## **ADDITIONAL INFORMATION**

- Proficient in Python, Java and C++ programming language and Linux system.
- Arduino and Teensy programming and hardware.
- Skilled in Adobe Photoshop.
- Practised in 3D printing.
- Fluent in English and Vietnamese.
- Love sport and art.