

# Lim Yi Shen

Email: yishen98@gmail.com Mobile: 88122998

Github: github.com/BruttherJOE

## EDUCATION

---

### Singapore University of Technology and Design (SUTD)

- Bachelor of Engineering (Engineering of Product Development), Honours
- Expected Date of Graduation: August 2022

Singapore

May 2019 to Present

### River Valley High School

- GCE 'A' Levels, (Physics, Economics, Mathematics, History)

Singapore

2014 – 2016

## WORK EXPERIENCES

---

### BAUMANN Spring (Internship)

*Stamping and spring industry, Robotics Developer position*

- Developed a PLC based AGV to continuously carry at least 50kg of load between 2 machines in the factory
- Implemented Bluetooth master-slave functionalities on AGV and on other existing machines to relay info and open a door
- Integrated LIDAR for safety management
- Created UI and ability to control the robot with a touch screen

May 2021 – Sep 2021

### Continental AG (Internship)

*Automotive firm, Robotics Developer position*

- Worked on the development of a ROS based autonomous last mile delivery robot – Corriere LM
- Implemented a Kalman Filter (UKF) and wrote unit tests for testing odometry and pose estimation

May 2020 – Sep 2020

### Systra, MVA (Internship)

*Consultancy firm, Civil Engineer position*

- Involvement in overseas and local projects such as the Planning of MRT3 Klang Valley Circle Line in Malaysia, and Tuas MRT project in Singapore
- Usage of SIDRA and algorithms to simulate traffic flow and calculate lane saturation
- Take on-site pictures of traffic flow / carpark lane saturation and presentation of data

Dec 2016 – Feb 2017

## NON - ACADEMIC PROJECTS

---

### LED Cube (IEEE SUTD LED Cube Challenge 2019) - Champion

- Spearheaded the development of the hardware as well as software in a team of 4 in the building of a LED Cube.

July 2019

### Line Tracing Robot (SOAR Challenge 2019) - Champion

- Led the creation of the robot in a team of 4.
- Modelled, laser cut, and assembled the physical parts for the robot, to go to payload, receive a payload and return to the start point.
- Tied for champion

Sep 2019

### UTOP (Undergraduate Teaching Opportunities Programme) Fundamentals of Electronics

- Taught first year students about microcontrollers and basic electronics, as well as basic circuitry and soldering

May – Aug 2019

### JESSICA Robotic Arm

- Leader of JESSICA team, a ROS based robotic arm designed to make and serve coffee autonomously.
- Designed and used EMG and flex sensors to make robotic arm mimic human arm movement, with 4D modelled and printed parts in addition to autonomously serving coffee.

Oct 2019 – Oct 2020

### Roboclash 2022 – Runner up (2<sup>nd</sup> Alliance)

- Designed, soldered, wired, coded, assembled, tested, and operated a robot from scratch.
- Robot must be able to score objectives in a competition, being one of the few robots which could successfully do everything.
- The only robot in the competition to have a self-righting mechanism, able to self-right when flipped over by hazards (or other robots)

Jan 2022

## CO-CURRICULAR ACTIVITIES

---

### SOAR (SUTD Organisation of Autonomous Robotics)

- Project Leader

2019 – Present

### IEEE (Institute of Electrical and Electronics Engineers)

2019 - Present

## ADDITIONAL INFORMATION

---

- Skills (basic): Python, ROS, CAD, Adobe Creative Suite, Arduino, RPI, Linux shell, Gazebo