

SHEN CHEN

+65 94565652 | +1 (510) 998 7533

cshen004@e.ntu.edu.sg | shenc.96@gmail.com | [linkedin.com/in/shenc96/](https://www.linkedin.com/in/shenc96/) | shenc909.github.io

SUMMARY

Passionate roboticist interested in robotics and autonomous systems. Able to learn new skills and technologies rapidly for quick application. Currently on a year-long exchange to UC Berkeley on the F1 student visa.

EDUCATION

Renaissance Engineering Programme, Nanyang Technological University, Singapore

Aug 2017 – Dec 2021 (Expected)

- Bachelor of Engineering Science (Computer Engineering)
- Master of Science in Technology Management
- CGPA of 4.64/5.00

Electrical Engineering and Computer Sciences, UC Berkeley, California

Aug 2019 – May 2020 (Expected)

- 1 Year Exchange to UC Berkeley
- Courses Taken:
 - EECS 127 Optimization Models in Engineering
 - EECS 192 Mechatronics
 - EL ENG C128 Feedback Control Systems
 - EL ENG 122 Introduction to Communication Networks
 - EECS C106A Introduction to Robotics

WORK EXPERIENCE

Cloud Application and Platform Lab (CAP), Nanyang Technological University, Singapore

Research Intern

May 2019 – Aug 2019

- Developed and tested a model-based reinforcement learning framework, Baconian
- Added support for DeepMind Control Suite
- Implemented Model-Ensemble Proximal Policy Optimisation (ME-PPO), based on work on Model-Ensemble Trust Region Policy Optimisation (ME-TRPO)

Shell EcoMarathon, Nanyang Technological University, Singapore

Autonomous System Team Member

Dec 2018 – May 2019

- Wrote firmware and selected sensors for feedback control of steering column, brakes, and accelerator
- Designed circuitry for converting autonomous drive computer commands into electrical signals for car movement
- Planned overall autonomous system architecture from sensor selection to onboard computer and microcontroller coordination

Centre Of Robotics Excellence (CORE)

Co-founder

Oct 2014 – Sep 2017

- Designed extensive EV3 robotics curriculum for multiple enrichment centres in Singapore
- Created a 24-hour Arduino robotics curriculum used to teach more than 450 students
- Coached robotics teams from Singapore schools for national competitions, where teams went on to win national and qualify for international competitions

CO-CURRICULAR ACTIVITIES

Makers' Lab

Technical Head

Sep 2018 – Aug 2019

Technical Committee Member

Aug 2017 – Aug 2018

- Organized events to introduce NTU students to maker movement and prototyping skills
- Facilitated workshops organized by Makers' Lab, providing guidance to participants as required

Raffles Institution (Junior College), Club Automatica

Secretary cum Treasurer

Jun 2013 to Jun 2014

- Created an integrated hardware and software solution to allow the Arduino to utilize sensors, display and processing capabilities of any Android platform via a hardware bridge, an application running on the Android device, and a library running on the Arduino
- Built an autonomous omnidirectional robot capable of playing a game of Robot Soccer in the RoboCup Junior Soccer Category as defined by the RoboCup Federation, winning 1st Position

AWARDS AND ACHIEVEMENTS

- Shell Imagine the Future Scenarios Competition 2018, 2nd Place
- Renaissance Engineering Programme Scholarship, 2017
- Singapore Infocomm Technology Federation Awards 2014 – Best Student Project, Gold
- RoboMaker Challenge 2014 – Best Soccer Robot, Best Overall
- RoboCup Singapore Open 2013 – 1st Robot Soccer Category, 1st Overall
- RoboCup Singapore Open 2012 – 1st Robot Soccer Category, 1st Overall
- RoboCup Internationals 2011 – 2nd Individual, RoboCup Junior, Robot Soccer Category, 2nd SuperTeam, RoboCup Junior Robot Soccer Category
- RoboCup 2011 Singapore Open – 1st Robot Soccer Category, 1st Overall
- First Lego League Singapore, 2011 – Most Innovative Design Award
- RoboCup 2010 Internationals – 2nd CoSpace Category

SKILLS

Programming Languages

C++ (Intermediate)

Python (Proficient)

Java (Intermediate)

Software Tools

Arduino
Robot Operating System
Microsoft Office
Adobe After Effects

Autodesk AutoCAD
Matlab
Adobe Photoshop

Autodesk Inventor Pro
Bash
Adobe Lightroom

Autodesk Fusion 360
Android Studio
Adobe Premiere Pro

Hardware Experience

Embedded Systems
Laser Cutter

Motor Control
3D Printer

Sensor Systems
Power Tools

Signaling (I²C, SPI, etc)

Languages

English (Native Speaker)

Mandarin (Native Speaker)