SHEN CHEN

+65 94565652 | +1 (510) 998 7533

cshen004@e.ntu.edu.sg | shenc.96@gmail.com| linkedin.com/in/shenc96/

SUMMARY

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

EDUCATION

Electrical Engineering and Computer Sciences, UC Berkeley Aug 2019 – Apr 2020

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

Renaissance Engineering Programme, Nanyang Technological University Aug 2017 – Now

- Specialized in Computer Engineering
- CGPA of 4.64/5

Raffles Institution (Junior College), Singapore Jan 2013 – Nov 2014

- Graduated with a University Admission Score (UAS) of 88.75/90

PROFESSIONAL EXPERIENCE

TinkerCORE, Tinkercademy

Chief Robotics Integrator Oct 2017 – Nov 2019

Developed and taught robotics curriculum for competitive robotics and for forming strong theoretical understanding of robotics

Data Management and Analytics Lab (DMAL), Nanyang Technological University

Research Intern May 2019 – Aug 2019

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

Centre Of Robotics Excellence (CORE)

Co-founder Oct 2014 – Sep 2017

- Developed extensive EV3 robotics curriculum for multiple enrichment centres in Singapore
- Developed 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 the nationals and qualify for the internationals

RoboCup Junior Rescue Simulation League, RoboCup Internationals 2019

Organizing Team Jun 2019 – Jul 2019

- Organized and judged robots for the RoboCup Internationals 2019, for the Junior Rescue Simulation League

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 the 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

Participated in the Singapore infocomm Technology Federation (SiTF) Awards and won the Best Student Project award

- Developed an integrated hardware and software solution to allow the Arduino to utilize the sensor, display and processing capabilities of any Android platform via a hardware bridge, a application running on the Android device, and a library running on the Arduino

Developed 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 CERTIFICATION

- Shell Imagine the Future Scenarios Competition 2018, 2nd Place
- Renaissance Engineering Programme Scholarship, 2017
- SiTF Awards – Best Student Project, Gold
- RoboMaker Challenge 2014 – Best Soccer Robot, Best Overall
- RoboCup Singapore Open 2013 – 1st Robot Soccer Category, 1st Overall
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- 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 AND INTERESTS

Programming Languages: C++ (Intermediate), Python (Intermediate), Java (Intermediate)

Software: Arduino, Audodesk AutoCAD, Adobe Photoshop, Adobe Lightroom, Adobe Premiere Pro, Adobe After Effects, Bash, Android Studio, Autodesk Inventor Pro, Autodesk Fusion 360, Robot Operating System, Matlab, Microsoft Office

Hardware: Experience working with motor controllers, sensor systems, electrical signaling protocols (I^2C, SPI, etc.)

Languages: English (native speaker), Mandarin (native speaker)

Hobbies: Robotics, Photography, Videography, Special Effects