

Yiyuan Lee

COMPUTER SCIENCE UNDERGRADUATE · RESEARCH INTERN
National University of Singapore · Adaptive Computing Lab
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Education

National University of Singapore

Singapore

BACHELOR OF COMPUTING IN COMPUTER SCIENCE AND MATHEMATICS

2017 - 2021

- Current CAP/GPA: 4.76/5.00.
- Specialization in artificial intelligence and numerical optimization.

Nanyang Junior College

Singapore

SINGAPORE-CAMBRIDGE GCE ADVANCED LEVEL

2013 - 2014

- Rank Point: 85/90.
- Distinction in H3 Science Research (Nanyang Research Programme - "Model of a Quantum Bit").
- Distinction in H3 Mathematics.
- Awarded Level Best in H2 Mathematics.

Skills

Frameworks Linux (Arch, Ubuntu, Fedora), ROS, Unreal Engine, CUDA, PyTorch, NodeJS, AWS, Arduino, WPF, MySQL DB, Android, Apache
Programming C/C++, Python, C#, Javascript, \LaTeX , HTML/CSS, Java, MySQL
Languages English, Chinese

Experience

Adaptive Computing Lab - National University of Singapore

Singapore

RESEARCH INTERN (PROF. DAVID HSU)

Aug. 2019 - Present

- Currently working on algorithms and systems for planning under uncertainty in research areas related to self-driving cars.

Institute for Infocomm Research - Agency for Science, Research and Technology

Singapore

RESEARCH INTERN (DR. YAN WU)

May. 2019 - Jul. 2019 | 3 mos

- Applied frame-wise convolutional and temporal convolutional neural networks to classifying materials using tactile data from the iCub robot.
- Investigated unsupervised approaches to classifying materials based on time-series tactile slide data: restricted Boltzmann machines, deep belief networks, variational autoencoders, deep Markov models.

Advanced Robotics Center - National University of Singapore

Singapore

RESEARCH INTERN (PROF. DAVID HSU, A/P MARCELO H. ANG JR)

May. 2018 - Apr. 2019 | 1 yr

- Developed and implemented practical and highly responsive planners for the navigation of car-like robots amidst moving obstacles.
- Integrated commonly used hardware and software packages in robotics perception, mapping, and localization: encoders, IMUs, lidars, stereo cameras, sensor fusion, Kalman filtering, PID control, gmapping, Monte Carlo localization, obstacle tracking.
- Software and electrical lead for the retrofitting and maintenance of test units.

Data Storage Institute - Agency for Science, Research and Technology

Singapore

RESEARCH INTERN (DR. VICTOR LEONG, DR. LEONID KRIVITSKY)

Feb. 2017 - May. 2017 | 4 mos

- Integrated various sensor and electrical components to software layers to facilitate the automation of experiments.
- Automated experiments to characterize the efficiency of avalanche photodiodes with respect to high voltage and temperature.

Signals - Singapore Armed Forces

Singapore

SOFTWARE DEVELOPER · SUPPLY ASSISTANT (COMMS.)

Feb. 2015 - Jan. 2017 | 2 yrs

- Developed software for the automated planning of radio frequency networks. Subsequently adopted across the entire Army.
- Developed software for inventory and loan tracking in managing supply stores. Subsequently adopted across all stores in CCO Stagmont.
- Developed experimental software for the automated scheduling of lesson plans for signal courses while satisfying resource constraints.

Experience (Others)

School of Computing - National University of Singapore

Singapore

TEACHING ASSISTANT

Aug. 2018 - Present

- Conducted weekly tutorial groups for CS1101S: Programming Methodology.
- Conducted weekly tutorial groups for CS3243: Introduction to Artificial Intelligence.

22nd Management Committee - NUS Students' Computing Club

INFORMATION TECHNOLOGY SECRETARY

- Managed various IT infrastructures to support the operations of the Management Committee

Singapore

Sep. 2019 - Present

20th Management Committee - NUS Students' Computing Club

ACADEMIC DIRECTOR

- Oversaw manpower and logistical efforts for the organization of various academic related student run events.
- Organized various workshops and mock practical exams to acclimatize students to the content of core modules.

Singapore

Sep. 2017 - Aug. 2018 | 1 yr

Honors & Awards

2019	Winner (Top 8) , Hack&Roll 2019	Singapore
2018	A*STAR Chairman's Honors List	Singapore
2017	A*STAR Undergraduate Scholarship	Singapore
2017	Full-time National Serviceman (NSF) of the Year Award	Singapore
2017	Commander's Coin (Chief Supply Officer)	Singapore
2016	Letter of Commendation (Signals Formation)	Singapore
2015	Commander's Coin (CO HQ Signals and Command Systems)	Singapore
2015	Best Soldier of the Month (HQ Signals and Command Systems) Award	Singapore
2014	Edusave Character Award	Singapore
2014	Edusave Award for Achievement, Good Leadership and Service	Singapore
2013	Represented Singapore to the World Robot Olympiad	Indonesia
2013	Second Place , National Junior Robotics Competition (Performance Category)	Singapore
2013	Third Place , National Junior Robotics Competition (Strategy Category)	Singapore
2013	Merit Prize , SUTD Technology & Design Challenge	Singapore
2013	Edusave Award for Achievement, Good Leadership and Service	Singapore