

**Eugene Lim** [eugenood@gmail.com](mailto:eugenood@gmail.com)  
Computing Undergraduate [eugenood.github.io](https://eugenood.github.io)  
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## Education

Aug 2017 – Present **National University of Singapore**  
B.Comp, Computer Science  
Specialization in Artificial Intelligence  
Expected to graduate with First Class Honours in Apr 2021

## Notable Experiences

- Aug 2020 – Present **National University of Singapore**  
Undergraduate Researcher under Dr. Harold Soh and Dr. Desmond Ong  
Can robots that display emotion improve their collaboration performance with a human? To investigate this, I designed an experiment and created a 3D environment that puts the human with an emotional robot to clear dishes. I published this experiment in Amazon Mechanical Turk to crowdsource data collection.
- Aug 2020 – Nov 2020 **National University of Singapore**  
Teaching Assistant for CS3244 Machine Learning  
Besides conducting tutorials, I created a series of videos that complement ongoing lectures. In this series, I discussed the theoretical underpinning behind linear regression, logistic regression, and principal component analysis. I obtained a 4.8/5.0 teaching rating from 25 students in my tutorial group.
- Apr 2020 – Aug 2020 **National University of Singapore**  
Undergraduate Researcher under Dr. Harold Soh  
Just as the goal of machine learning is to make machines be good learners, the goal of machine teaching is to make machines be good teachers. Inspired by the theoretical concept of probably approximately correct (PAC) learning, I defined PAC teaching and derived some basic theoretical limits of teaching a hypothesis to a student under this definition.
- Aug 2019 – Apr 2020 **National University of Singapore**  
Undergraduate Researcher under Dr. Harold Soh  
For a robot to successfully assist a human, it must infer the human's intention. I designed a variant of the Deep Q-Network that can infer the human's intention and react accordingly in human-robot collaboration tasks. To test our method, I designed and implemented a 2D clone of Overcooked in Python. I published the results in the International Conference of Human-Robot Interaction (HRI '20) and received the NUS Outstanding Undergraduate Research Award.
- May 2019 – Aug 2019 **Agency of Science Technology and Research**  
Research Intern under Dr. Tanaya Chaudhuri  
Sensors degrade over time, and as a result, their readings drift. I assisted in investigating the use of recurrent neural networks and attention mechanisms for correcting these sensor drifts. I implemented these models in PyTorch.
- May 2017 – Jul 2017 **Agency of Science Technology and Research**  
Research Intern under Dr. Jamie Ng  
I developed an augmented reality teaching tool using HoloLens for guiding aircraft technicians to replace wheels. I designed the 3D models used in this tool using Blender.

## Other Experiences

- Aug 2019 – Nov 2020     **National University of Singapore**  
Teaching Assistant for CS3244 Machine Learning
- Aug 2018 – Nov 2019     **National University of Singapore**  
Teaching Assistant for CS1231 Discrete Structures
- Aug 2017 – Aug 2018     **National University of Singapore**  
Information Technology Secretary for NUS Computing Club

## Skills

### Web Development

HTML, CSS, JavaScript, Node.js, Express, React

### Machine Learning

Python, NumPy, PyTorch, TensorFlow

### Interactive Design

Blender, Godot, Unity3D

## Publications

Eugene Lim, Bing Cai Kok, Songli Wang, Joshua Lee, and Harold Soh. 2020. Juiced and Ready to Predict Private Information in Deep Cooperative Reinforcement Learning. 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI '20).

## Honors and Awards

- 2020     **NUS Outstanding Undergraduate Research Award**, Recipient
- 2019     **NUS SoC Term Project Showcase (15th STePS)**, Second Prize for CS6101 Deep Unsupervised Learning
- 2018     **NUS SoC Term Project Showcase (12th STePS)**, First Prize for CS6101 Deep Learning via Fast.AI
- 2017     **A\*STAR Undergraduate Scholarship**, Recipient