Eugene Lim

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ABOUT

Final-year Ph.D. candidate in Computer Science at the National University of Singapore, specializing in algorithm design, machine learning, and optimization. Interested in using mathematical modeling and principled algorithmic techniques to solve real-world challenges. My current research explores fairness in repeated matching problems.

EDUCATION

National University of Singapore — *Ph.D. in Computer Science*
Aug 2021 – Apr 2026 | CAP 5.0 / 5.0

- Thesis: Egalitarian Repeated Matching
- Awarded AISG Ph.D. Fellowship

National University of Singapore — *B.Comp. (Hons), Computer Science*
Aug 2017 – Aug 2021 | CAP 4.6 / 5.0

- Awarded A*STAR Undergraduate Scholarship

RELEVANT EXPERIENCES

National University of Singapore — *Ph.D. Researcher*
Aug 2021 – Present

- Designed principled algorithms for fair repeated matching problems.
- Applied multi-armed bandits, optimization theory, and theory of computation.

National University of Singapore — *Teaching Assistant*
Aug 2020 – Present

- Courses: Machine Learning (CS3244, CS3264), Uncertainty Modelling in AI (CS5340)
- Designed and delivered tutorials and lectures on core and advanced machine learning topics.
- Received NUS SoC Honor List of Tutors & Teaching Fellowship

National University of Singapore — *Undergraduate Researcher*
Aug 2019 – Apr 2020

- Developed Deep Q-Network variant to infer human intentions in collaborative tasks.
- Built a 2D Overcooked-like simulator to evaluate human-AI teaming policies.
- Published in ACM/IEEE HRI ’20; won NUS Outstanding Undergraduate Research Award.

TeleNUS — *Creator*
Jan 2019 – Sep 2019

- Built a full-stack application (frontend, backend, Telegram bot) for indexing NUS Telegram groups.
- Designed a decentralized, community-driven moderation system.
- Project adopted by NUSMods (largest student-run open-source organization at NUS).
- Index available at telenus.nusmods.com.

Agency for Science, Technology and Research (A*STAR) — *Research Intern*
May 2019 – Aug 2019

- Designed RNN models for sensor drift correction in time series data.
- Built predictive models in PyTorch; evaluated on time series sensor data.

CORE SKILLS

Theoretical Knowledge
Statistical Inference · Stochastic Processes · Econometrics · Multi-Armed Bandits
Machine Learning · Deep Learning · Optimization · Approximation Algorithms

Scientific: Python, NumPy, Pandas, PyTorch
Web: Javascript, Node.js, React, SQL
Others: Java, C++, LaTeX, Git

HONORS AND AWARDS

2025 **NUS SoC Teaching Fellowship**, Recipient
2024 **NUS SoC Honor List of Student Tutors**, Recipient
2023 **NUS SoC Honor List of Student Tutors**, Recipient
2023 **NUS SoC Teaching Fellowship**, Recipient
2021 **AISG PhD Fellowship**, Recipient
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

PUBLICATIONS

Eugene Lim, Tzeh Yuan Neoh, Nicholas Teh. 2025. *Welfare Guarantees of EFX Allocations with Few Items*. Under Review.

Eugene Lim, Nicholas Teh, Tzeh Yuan Neoh, Harold Soh. 2025. *Fairness in Repeated Matching with Bandit Feedback*. Under Review.

Eugene Lim, Tzeh Yuan Neoh, Nicholas Teh. 2025. *Fairness in Repeated Matching: A Maximin Perspective*. 40th AAAI Conference on Artificial Intelligence (AAAI), 2026.

Eugene Lim, Vincent Y. F. Tan, Harold Soh. 2024. *Stochastic Bandits for Egalitarian Assignment*. Transaction of Machine Learning Research (TMLR).

Kaiqi Chen, **Eugene Lim**, Kelvin Lin, Yiyang Chen, Harold Soh. 2024. *Don't Start from Scratch: Behavioral Refinement via Interpolant-Based Policy Diffusion*. Robotics: Science and Systems (R:SS).

Eugene Lim, Harold Soh. 2022. *Observed Adversaries in Deep Reinforcement Learning*. AAAI Fall Symposium Series, Artificial Intelligence for Human-Robot Interaction.

Tasbolat Taunyazov, Luar Shui Song, **Eugene Lim**, Hian Hian See, David Lee, Benjamin C.K. Tee, Harold Soh. 2021. *Extended Tactile Perception: Vibration Sensing through Tools and Grasped Objects*. IEEE International Conference on Intelligent Robots and Systems (IROS).

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).