

Zhiliang Chen

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Education

- 2022 Aug - Present **National University of Singapore**
PhD, Department of Computer Science
Supervisor: Assoc. Prof. Bryan Kian Hsiang Low & Dr. Nancy F. Chen
- 2016 Aug - 2020 May **National University of Singapore**
Double Degree. BSc. Applied Mathematics, B.Comp. Computer Science
Highest Distinction for both degrees.

Industry experience

- 13/04/2026 - 25/09/2026 **Meta (Research Intern)** – New York City
Adaptive Experimentation under Central Applied Science.
- 06/01/2020 - 08/01/2022 **Motional (Motion Planning Software Engineer)** – Singapore
Developed motion planning algorithms related to preference-based trajectory planning in C++. Deployed algorithms on Motional's self-driving cars for real-time testing. Followed up with performance analysis and long-term regression tracking in Python. Published papers and patents with ML team.

Publications

- 2025 **DUET: Optimizing Training Data Mixtures via Feedback from Unseen Evaluation Tasks**
Zhiliang Chen, Gregory Lau, Chuan-Sheng Foo, Bryan Kian Hsiang Low. *ICLR 2026*
- 2025 **Uncovering Scaling Laws for Large Language Models via Inverse Problems**
Arun Verma, Zhaoxuan Wu, Zijian Zhou, Xiaoqiang Lin, Zhiliang Chen, Rachael Hwee Ling Sim, Rui Qiao, Jingtian Wang, Nhung Bui, Xinyuan Niu, Wenyang Hu, Gregory Kang Ruey Lau, Zi-Yu Khoo, Zitong Zhao, Xinyi Xu, Apivich Hemachandra, See-Kiong Ng, Bryan Kian Hsiang Low. *EMNLP 2025*

- 2025 **Broaden your SCOPE! Efficient Multi-turn Conversation Planning for LLMs with Semantic Space**
Zhiliang Chen, Xinyuan Niu, Chuan-Sheng Foo, Bryan Kian Hsiang Low.
ICLR 2025 Spotlight (top 5% of total submissions).
- 2024 **Towards AutoAI: Optimizing a Machine Learning System with Black-box and Differentiable Components**
Zhiliang Chen, Chuan-Sheng Foo, Bryan Kian Hsiang Low. *ICML 2024.*
- 2021 **The Reasonable Crowd: Towards evidence-based and interpretable models of driving behaviour**
Bassam Helou, Aditya Dusi, Anne Collin, Noushin Mehdipour, Zhiliang Chen, Cristhian Lizarazo, Calin Belta, Tichakorn Wongpiromsarn, Radboud Duintjer Tebbens, Oscar Beijbom. *IROS 2021.*

Patents

- 2023 Immobility Detection with Situational Context (US11851091B2)
- 2023 Efficient and optimal feature extraction from observations (US11727671B1)
- 2021 Data-driven Rulebooks (US11945440B2)

Teaching

- 2023 Teaching Assistant CS4246 AI Planning and Decision Making
- 2022 Teaching Assistant CS3203 Software Engineering

Honors and scholarships

- 2024/2025 National University of Singapore Research Achievement Award
- 2022 A*STAR Computing and Information Scholarship (216,436 USD across 4 years)
- 2017-2020 Dean's list (four semesters)

Mentorship and service

Reviewer for IROS, ICRA, AISTATS, NeurIPS and ICLR.