Frieda Rong

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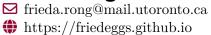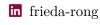
🌐 https://friedeggs.github.io   Ⓖ Frieda Rong

Research Areas: Computer Graphics • Robotics • Artificial Intelligence

Education

2024 –   🔖 **Ph.D. Computer Science, University of Toronto**
Advised by: Prof. Raquel Urtasun. Committee: Profs. Sanja Fidler & TBD.

2015 – 2020   🔖 **B.Math. Pure Mathematics & Computer Science, University of Waterloo**
Triple major in Pure Mathematics, Combinatorics & Optimization, and Computer Science.

Employment History

2024 –   🔖 **Researcher II.** Waabi, Behaviors Team, Toronto, ON, Canada.

2020   🔖 **Research Scientist.** Uber ATG Toronto, Research & Development, Simulation Team.
Demonstrated a data-driven pipeline for the photorealistic video simulation of cars inserted into urban driving scenes. Work resulted in award-winning publication (see below).

2019   🔖 **Part-time Employee.** Uber ATG Toronto, Research & Development, Simulation Team.
Continued internship work with data pre-processing and novel view synthesis research.

Fall 2018   🔖 **Research Intern.** Uber ATG Toronto, Research & Development, Simulation Team.
Implemented a hardcoded baseline for the photorealistic image simulation of cars inserted into urban driving scenes.

Research Publications

Conference Proceedings

1. Y. Chen*, **F. Rong***, S. Duggal*, *et al.*, "Geosim: Realistic video simulation via geometry-aware composition for self-driving," in *Proceedings of the IEEE/CVF conference on computer vision and pattern recognition*, **Best paper candidate**, 2021, pp. 7230–7240.

Patents

1. **F. Rong**, Y. Chen, S. Duggal, *et al.*, "Photorealistic image simulation with geometry-aware composition," U.S. Patent 11 551 429, Jan. 10, 2023. 🔗 URL: https://patentimages.storage.googleapis.com/b7/44/c7/b8e9be243d9704/US11551429.pdf.

Awards and Achievements

2024   🔖 **NSERC CGS-D 3 Year Fellowship**, University of Toronto, $120,000 CAD overall.

2015–2020   🔖 **University of Waterloo Faculty of Mathematics National Scholarship**, $25,000 CAD.