

Siddarth Narasimhan

Robotics Institute, Mechanical Engineering

University of Toronto, Canada

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Email: s.narasimhan@mail.utoronto.ca

Website: <https://quest2gm.github.io/>

PUBLICATIONS

Forthcoming Contributions

- 2024 **S. Narasimhan**, D. Choi, A. H. Tan, G. Nejat, “OLiVia-Nav: An Online Lifelong Vision Language Approach for Mobile Robot Social Navigation”, IEEE International Conference on Robotics and Automation (Under Review), LangRob @ CoRL 2024, LLHomeRobots @ CoRL 2024 (**Spotlight**)
- 2024 A. H. Tan, **S. Narasimhan**, G. Nejat, “4CNet: A Diffusion Approach to Map Prediction for Decentralized Multi-Robot Exploration”, IEEE Transaction on Robotics (Under Review)

Non-Refereed Contributions

- 2023 **S. Narasimhan**, “Using Contrastive Learning for Map Prediction in 3D Environments via Trajectory Map Pretraining”, BAsC Thesis University of Toronto Engineering Science
- 2020 **S. Narasimhan**, W. Huang, N. Zheng, “Intelligent Time-Stamp Detection and Recognition Using an Adaptive Sliding Window Approach”, Ministry of Transportation

EDUCATION

- 2023-2025 **Master of Applied Science (MAsC)**, University of Toronto, Canada
Autonomous Systems and Biomechatronics Lab
GPA (4.0/4.0)
Advisor: Goldie Nejat
- 2018-2023 **Bachelor of Applied Science (BAsC)**, Engineering Science, Honours
Major: Robotics Engineering, Minor: Artificial Intelligence
GPA (3.6/4.0)
Thesis: Map Inference and Exploration using Contrastive Learning

PROFESSIONAL EXPERIENCE

Syncere AI

Lead Hardware and Software Engineer

Nov 2024 - Present

- Building a startup with my colleagues in an effort to bring robots into the home.
- Currently involved in building the hardware and software design of our robot.
- See our weekly progress [here!](#)

Advanced Micro Devices (AMD)

Power Design / Firmware Engineer

May 2021 – April 2022

- Documented performance of ASICs using metrics such as power efficiency, over current protection, dynamic response and power up.
- Designed a robust Remote Management platform to automate I2C traffic
- Received **Spotlight Award** for excellent contributions and performance as a co-op student.

Ontario Ministry of Transportation

Data Science Intern

June 2020 – August 2020

- Developed an intelligent provincial transportation system for highway analytics by leveraging GPS data and machine learning.
- Designed a novel timestamp detection and recognition algorithm to locate and convert timestamps found in highway video feed to text.

Ontario Ministry of Government and Consumer Services

Data Analyst

June 2018 – August 2019

- Built macro-powered databases to analyze thousands of spend transactions by Ontario ministries and standardize annual reporting.

SCHOLARSHIPS

2024	NSERC HeRo Create Fellowship (\$10k)
2020	Mario and Dorothy Pesando Scholarship (\$4k)
2018	Hira and Kamal Ahuja Award in Engineering (\$1.5k)
2018	Loblaw Scholarship (\$1.5k)
2018	UofT Engineering Entrance Scholarship (\$2k)
2018	Municipal Engineers Association Bursary (\$1.5k)

TEACHINGS

2025	MIE443: Mechatronics Systems: Design & Integration, Lab TA, UofT
2024	MIE443: Mechatronics Systems: Design & Integration, Lab TA, UofT