Siddarth Narasimhan

Robotics Institute, Mechanical Engineering
University of Toronto, Canada
https://quest2gm.github.io/
Last Updated: February 2025

PUBLICATIONS

Peer Reviewed Contributions

2024 **S. Narasimhan**, A. H. Tan, D. Choi, G. Nejat, "OLiVia-Nav: An Online Lifelong Vision Language Approach for Mobile Robot Social Navigation", **IEEE International Conference on Robotics and Automation 2025,** Workshop @ **CoRL 2024** (**Spotlight Presentation**)

Forthcoming Contributions

2024 A. H. Tan, **S. Narasimhan**, G. Nejat, "4CNet: A Diffusion Approach to Map Prediction for Decentralized Multi-Robot Exploration", **IEEE Transactions 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, Link

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
(Expected August 2025)
Master of Applied Science (MASc), University of Toronto, Canada
Autonomous Systems and Biomechatronics Lab
GPA (4.0/4.0)
Advisor: Goldie Nejat
Societies: Society for the Pursuit of AGI

2018-2023
Bachelor of Applied Science (BASc), Engineering Science, Honours
Major: Robotics Engineering, Minor: Artificial Intelligence
Major GPA (3.6/4.0)

Thesis: Map Inference and Exploration using Contrastive Learning

PROFESSIONAL EXPERIENCE

Syncere
Lead Hardware and Software Engineer
Sept 2024 - Present

- Currently leading the hardware and software design of our robot
- 3D designed 6DoF and 4DoF mobile manipulators from scratch
- Implemented diffusion and large vision language model policies to perform object manipulation and sanitation tasks in a washroom

Advanced Micro Devices (AMD)
Power Design / Firmware Engineer
May 2021 – April 2022

- Received **Spotlight Award** for excellent contributions and performance as a co-op student.
- Designed a robust Remote Management platform to automate and decode thousands of I2C messages from GPUs
- Documented performance of 100 ASICs using metrics such as power efficiency, over current protection, dynamic response and power up.

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

EXTRACURRICULARS

2023	Excelsior June Open U2000 Chess Tournament, 2nd Place
2022	Hart House Holidays Open U1900 Chess Tournament, 1st Place
2019	Canadian Junior Chess Championship U1300, 1st Place
2018	Ontario High School Chess Championships, 4th Place
2018	Peel Chess League, 2nd Place
2017	University of Waterloo Canadian Senior Math Contest, 1st Place
2017	ROPSSAA Table Tennis, Men's Singles, 4th Place
2017	Region of Peel Chess Tournament – Seniors, 3rd Place
2016	Region of Peel Chess Tournament – Juniors, 1st Place