Maksim Sorokin

Ph.D. student in Robotics @ Georgia Tech

https://initmaks.com/

My research interests lie at an intersection of reinforcement learning and computer vision. In particular, when applied to robotic applications such as navigation and environment interaction/manipulation.

Competences: Python Pytorch Pybullet iGibson OpenCV Numpy C/C++ Tensorflow ROS docker

EDUCATION

2020 - Now	Georgia Institute of Technology	(Atlanta, GA)
	Ph.D. in Robotics with focus on Vision-based Deep Reinforcement Learning	
	Advised by Dr. Sehoon Ha	
2017 - 2020	Georgia Institute of Technology	(Atlanta, GA)
	M.S. in Computer Science, Specialization in Computational Perception and Robotics	
	Advised by Dr. C. Karen Liu	
2013 - 2017	Izmir University of Economics	(Izmir, Turkey)

EXPERIENCE

Jun 2022 Al Resident **EVERYDAY ROBOTS**

Sep 2021 I am currently a Artificial Intelligence PhD Resident at Everyday Robots (formerly Google X).

Reinforcement Learning | Computer Vision

B.S. in Computer Engineering

May 2020 **Graduate Researcher**

Jan 2019

at Graphics Lab under Dr. C. Karen Liu

> Worked on object localization and manipulation for agents with egocentric view

- > Developed Vision-based Deep Reinforcement Learning pipeline
- > Published "Learning Human Search Behavior from Egocentric View" paper.

Reinforcement Learning Computer Vision Manipulation Navigation

May 2020

Head Teaching Assistant Sep 2018

Georgia Tech

GEORGIA TECH

Artificial Intelligence class under Dr. Thomas Ploetz & Dr. Thad Starner

- > Helped organize and lecture the class of 800+ students
- > Led the team of 16 Teaching Assistants
- > Responsible for assignments, exams, and course coordination

Al Machine Learning Python Numpy jupyter docker



③ IEEE ROBOTICS AND AUTOMATION LETTERS (RA-L) [2022]

LEARNING TO NAVIGATE SIDEWALKS IN OUTDOOR ENVIRONMENTS

Maks Sorokin, Jie Tan, C. Karen Liu, Sehoon Ha

We design a system which enables zero-shot policy transfer to the real-world outdoor environments for sidewalk navigation task. Our approach is evaluated on a quadrupedal robot navigating sidewalks in the real world walking 3.2 kilometers with a limited number of human interventions.



HUMAN MOTION CONTROL OF QUADRUPEDAL ROBOTS USING DEEP RL

Sunwoo Kim, Maks Sorokin, Jehee Lee, Sehoon Ha

We propose a novel motion control system that allows a human user to operate various motor tasks seamlessly on a quadrupedal robot. Using our system a user can execute a variety of motor tasks, including standing, sitting, tilting, manipulating, walking, and turning, on simulated and real quadrupeds.



