Easop Lee

CONTACT INFORMATION Office: Room 134, North Building. Durham, NC, USA

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RESEARCH INTERESTS My research interests lie at the intersection between robotics and machine learning. I am currently tackling multi-robot multi-task manipulation tasks through learning-based methods. Broadly, I am interested in developing human-centered robots that can intelligently interact with the world.

EDUCATION

Ph.D. in Electrical and Computer Engineering

August 2023 - Present

Duke University, Durham, NC

- Advisor: Prof. Boyuan Chen
- Coursework: Intro to Robotics, Robot Learning

B.S.E. in Electrical and Computer Engineering, GPA: 3.80/4.00

May 2023

Duke University, Durham, NC

- Double major in Computer Science and Minor in Physics
- Coursework: Deep Learning, Advanced Topics in Deep Learning, Machine Learning and Neural Nets, Digital Systems, Algorithms, Quantum Mechanics, Quantum Information Science

RESEARCH EXPERIENCE

General Robotics Lab, Duke University, Durham, NC, USA

Graduate researcher

May 2023 - present

• Developing a behavior cloning policy with scene-self decoupling method tailored for multi-task multi-robot scenarios, aiming for a large-scale pre-trained manipulation policy.

Undergraduate researcher

Sep 2022 - April 2023

• Designed an effective training strategy for visual self-model for precise kinematics adaptation in high degree of freedom robots. Results were resented in two department wide poster presentation sessions.

+DataScience Research Program, Duke AI Health, Durham, NC, USA

Student Research Affiliate

Jan 2022 - Dec 2022

• Developed a predictive model using deep learning for the segmentation of malignancy in skin images. Mentored by Duke ECE faculty, Dr. Ricardo Henao, and presented in department wide poster presentation session.

PUBLICATIONS

[1] Pingcheng Jian, **Easop Lee**, Zachery Bell, Michael M. Zavlanos, Boyuan Chen. Policy Stitching: Learning Transferable Robot Policies. (CoRL 2023).

PRESENTATIONS

- Easop Lee. Fall 2022 Research Poster Session for "Visual World Modeling with Robot Interaction", Duke University, Electrical and Computer Engineering Department, December 2022. (Poster)
- Easop Lee, Ashka Shah, Mohammed Elmzoudi. CS+ Summer Research Symposium and Poster Session for "3D Bone Models from Pelvic MR Imaging", Duke University, Computer Science Department, August 2022. (Oral and Poster)
- Easop Lee. Spring 2022 Research Poster Session for "Automated Skin Lesion Segmentation with CNNs", Duke University, Electrical and Computer Engineering Department, April 2022. (Poster)

TEACHING EXPERIENCE

Pratt School of Engineering, Duke University, Durham, NC, USA

Undergraduate Teaching Assistant

January 2022 - May 2023

- EGR103L Computational Methods in Engineering
- EGR224L Electrical Fundamentals of Mechatronics
- ECE270L Fields and Waves

Mathematics Department, Duke University, Durham, NC, USA

Undergraduate Laboratory Co-Leader

January 2022 - December 2022

• MATH111L Laboratory Calculus I

Math Help Room Tutor

January 2022 - December 2022

Held weekly office hours for walk-in student tutoring for 5 different calculus courses offered at Duke.

EMPLOYMENT

CS+ Internship, Duke University, Durham, NC, USA

Summer undergraduate research intern

May 2022 - August 2022

Completed a medical imaging related project with three other undergraduates at the Mazurowski Lab:

- Evaluated and applied computer vision models to 3D musculoskeletal MRI scans, and created an interactive 3D model from a stack of 2D segmentation predictions.
- Developed a website that automatically outputs an interactive 3D bone model from a user-inputted 3D MRI scan.

HONORS AND AWARDS

ECE Department Conference Travel Fellowship, Duke University

2023

All ACC Academic

2020, 2022

COMPUTER SKILLS

- Programming: Python, MATLAB, Java, C, MIPS.
- Robotics: Pybullet, OpenAI Gym, Mujoco, ROS.
- Web Development: Typescript, Node.js, Vue.js, HTML, CSS, Flask, MongoDB.
- Applications: LATEX, Blender, Git.

EXTRA-CURRICULAR INVOLVEMENT

Duke University Varsity Women's Swimming and Diving Team

August 2018 - May 2023