

The Robotic Embedded Systems Lab (RESL) at USC is looking for a volunteer who has an interest in robotic manipulation and imitation learning.

This project aims to extend our prior work, [VoxAct-B](#), to enhance the voxel-based approach and address long-horizon bimanual manipulation tasks. The ideal candidate will take the lead in this project, contributing to the design and implementation of innovative approaches to achieve our objectives. We plan to publish the results in top-tier robotics conferences, such as CoRL and RSS. Additionally, Professors [Gaurav Sukhatme](#), [Daniel Seita](#), and I will oversee the project to provide guidance and ensure its successful progression.

What you will be doing:

- Research and implement novel ideas within the [VoxAct-B codebase](#).
- Implement baseline algorithms.
- Conduct real-world experiments using our bimanual UR5 robotic setup.
- Dedicate at least 15 hours per week to the project.

Required skills:

- Proficiency in Python and PyTorch.
- Being self-motivated and willing to work on something challenging.

Nice to have:

- Prior experience developing imitation learning algorithms for robotics.
- Hands-on experience with real robotic systems.

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