

Faculty Name:

Garud Iyengar

Faculty Email:

gi10@columbia.edu

Lab:

Iyengar

Project Title:

Equivariant neural networks for material design

Description:

Feedforward neural networks are able to approximate very complex functions of the input variables. However, the amount of data required to train these networks, in particular, deep neural networks effectively grows rapidly with the size of the network. One way to reduce this data requirement is to encode the symmetries of the function directly into the network structure. In this project, we will explore how to effectively encode symmetries of various kinds.

Location of Research:

On Site

of hrs/week:

40

Department/Program:

Industrial Engineering & Operations Research

Eligibility:

BS, Third Year

To apply, please contact:

Garud Iyengar

gi10@columbia.edu