For each of the preferred research labs you have chosen in this form, please list:

(1) A brief description of the lab's research area.
(2) The reason you are selecting the lab.
(3) The specific research topics of the lab you are interested in.
(4) Your prior training relevant to the topics of the lab.
(5) Why are you a good fit for the lab?

DREAM Lab

1) Primary focus is on distributive systems for scaling and optimizing machine learning applications.

2)

i) I have interest in systems, which aligns towards the work happening here, and I am curious to explore more in it.

ii) I am also good at the pre-requisites this lab demands.

iii) This lab has some project such as SATVAM, EqWater where given an opportunity, I might be making actual contribution society.

iv) Has active collaboration to industries such as Microsoft research, VMware and Facebook.

3) I am more interested in Designing Distributed platforms for GNN training and then their optimizations.

4) I am good at Operating systems, scheduling and graph algorithms and C++ language which is some of pre requisites this lab demands.

5) The reason I am good fit at this lab is my interest and my skillset/pre-requisite knowledge align to this lab. And apart from this I have good communications skill, strong problem-solving ability and an experience in working in teams which, I believe, are necessary while working as research student.

MARS Lab

1) Primary focus on Large scale parallel application and parallel computing for applications like climate modelling, molecular dynamics, graph algos, ML/DL etc.

2)

i) I know programming language(c/c++) very well and also I have a background in operating systems, which aligns towards the work happening here, and I am curious to explore more in parallel computing.

ii) I am also good at the pre-requisites this lab demands.

3)I am interested in multi node multi gpu frameworks for CS and AI/ML based applications

4)I am good at Programming and Data structures, Operating systems, Computer architectures, algorithms and C++ language which is some of pre requisites this lab demands.

5) The reason I am good fit at this lab is my interest and my skillset/pre-requisite knowledge align to this lab. And apart from this I have good communications skill, strong problem solving ability and an experience in working in teams which, I believe, are necessary while working as research student.

VCL Lab

1) Video surveillance in real time, computer vision and Machine learning for video analytics

2)

i) I am good at the pre-requisites this lab demands.

ii) This lab has project on real world problems like video analytics surveillance.

iii) Has active collaboration to other research labs.

3)person identification problem in both visible and thermal spectrums.

4) I am good at linear algebra and probability and also in programming too.

5) The reason I am good fit at this lab is my interest and my skillset/pre-requisite knowledge align to this lab. And apart from this I have good communications skill, strong problem solving ability and an experience in working in teams which, I believe, are necessary while working as research student.