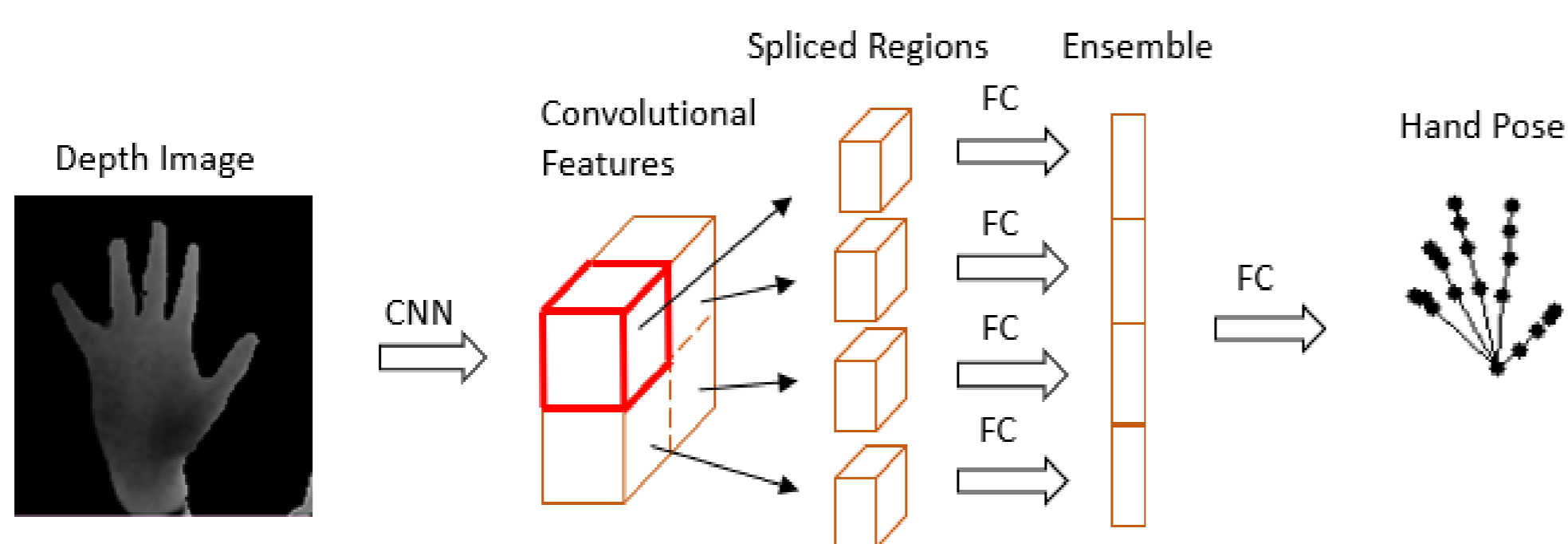


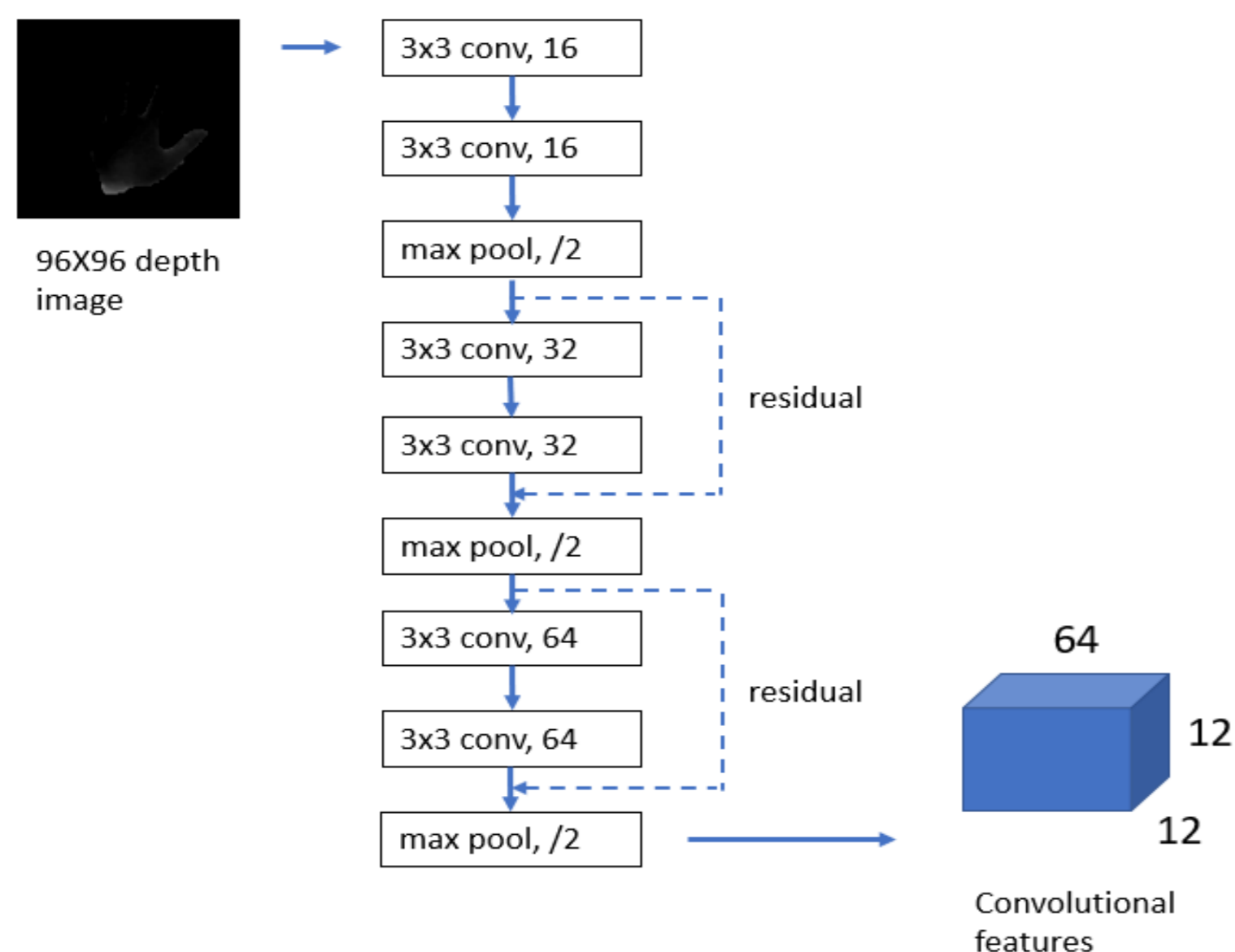
HAND POSE ESTIMATION FROM DEPTH IMAGES – A HIPC SOLUTION TO DEEP LEARNING CNN

Student: Andrew Koh Jin Jie
Supervisor: Dr Lin Feng

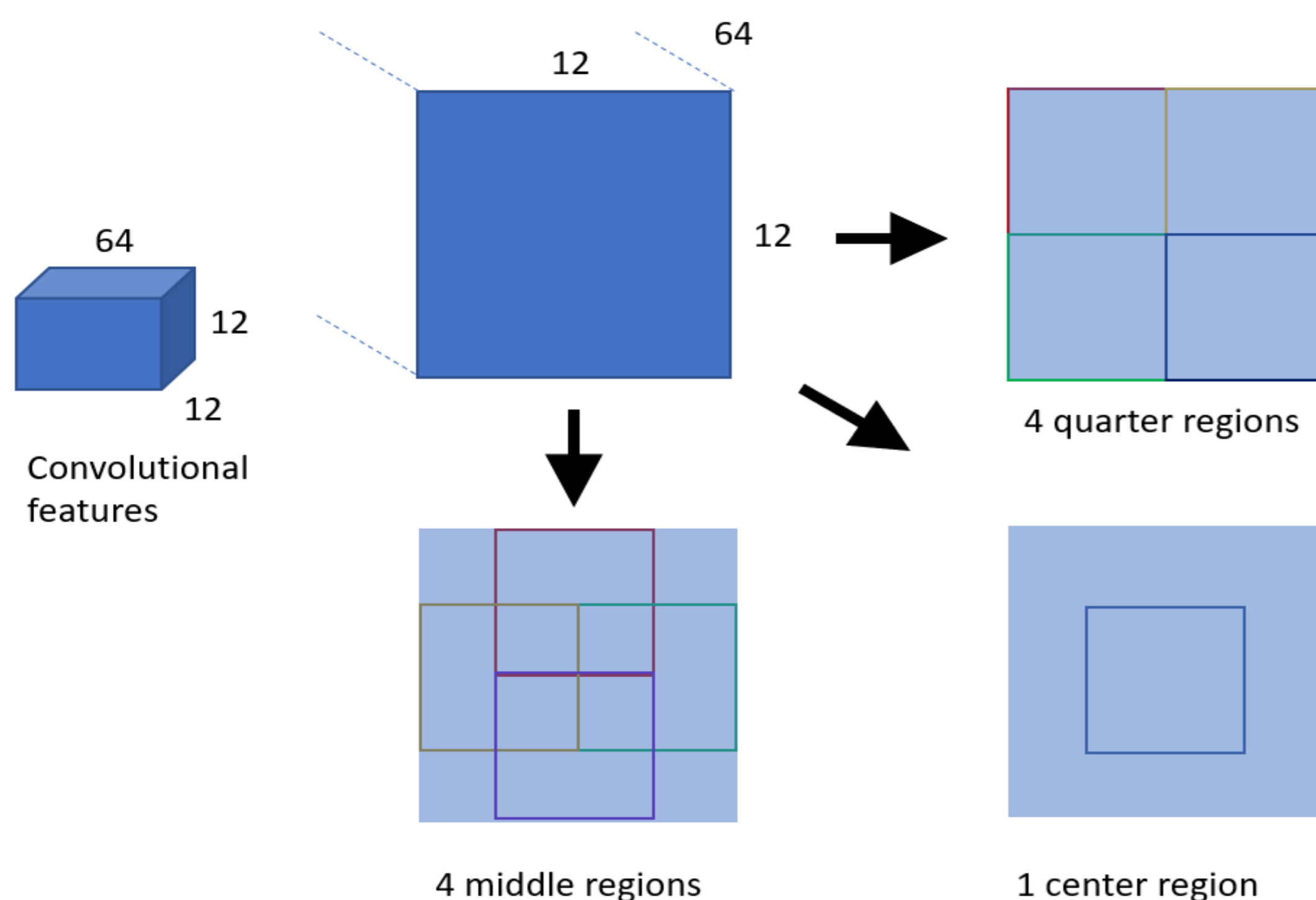
Methodology



• Region Ensemble from Convolutional features

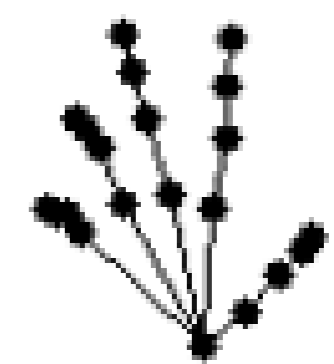


• Feature Splicing to get Regions



Objective: To perform hand pose estimation in real time from single depth images, for the purpose of diagnosing Rheumatoid Arthritis

Application: X-rays vs Hand Pose Estimation



- **X-rays:** Detect rheumatoid arthritis by analysing the joints of the hand
- **Hand Pose Estimation:** Circumvent x-rays while still being able to accurately predict hand joints, a much safer option

Training: Performed on a Telsa k40t, using the National Super Computing Centre

Hardware:

Microsoft Kinect



GPU



Software:

Pytorch

PyTorch

OpenCV

