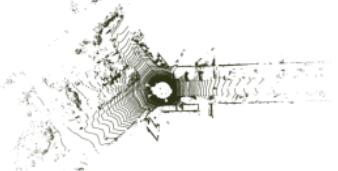
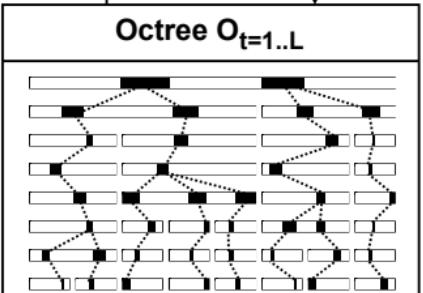


## Point Cloud



reconstruction

## Octree $O_{t=1..L}$

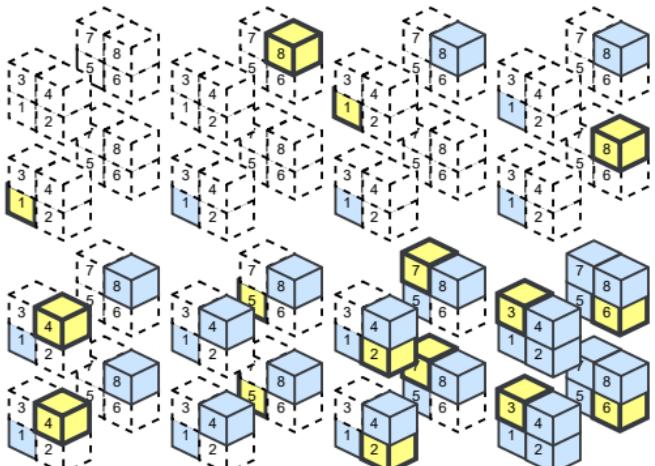


$t=1..L$

occupancy  
code

reconstruction

## Progressive Grouping ( $C_{tg}, O_{<tg}$ )



Serialize, Vectorize, Featurize, Indexing

## Binary Arithmetic Encoder

code

→

C

probabilities

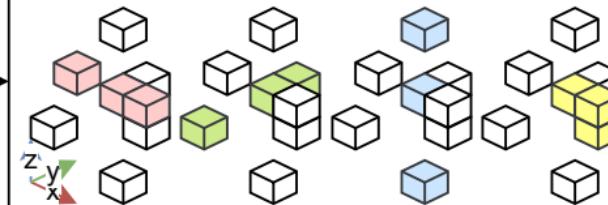
## Binary Arithmetic Decoder

Q<sub>t</sub>

## Categorical Cross Entropy (k=2)

parameter  
update

## Index Convolution ( $F, I_{x,y,z,q}$ )



Sum

ReLU + Layer Normalization

Target Gathering ( $F', T$ )

Distiller

F'1

F'<sub>n+1</sub>

...

F'<sub>n</sub>

Dense<sup>k=2</sup>

Dense<sup>k=2</sup>

Dense<sup>k=2</sup>

Q'1

Q'<sub>n+1</sub>

Q'<sub>n</sub>

Sum

Softmax

$\theta_{t+1}$