



Yida

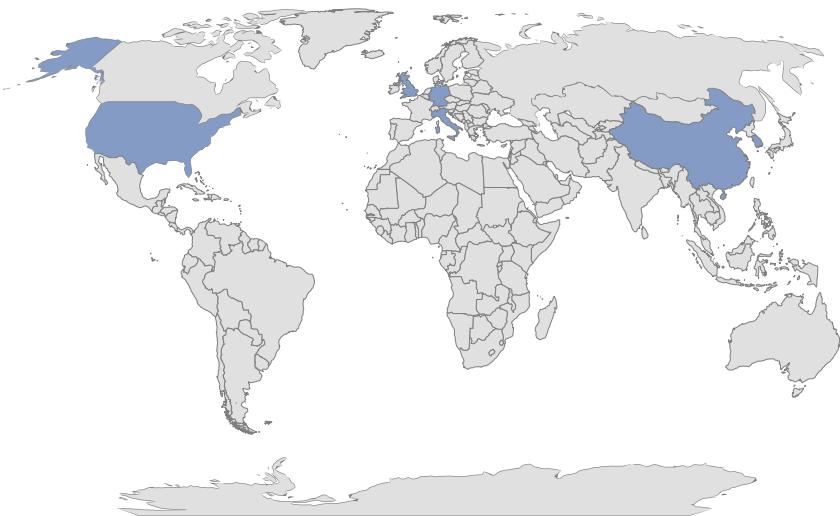
WANG



1. Educational Background

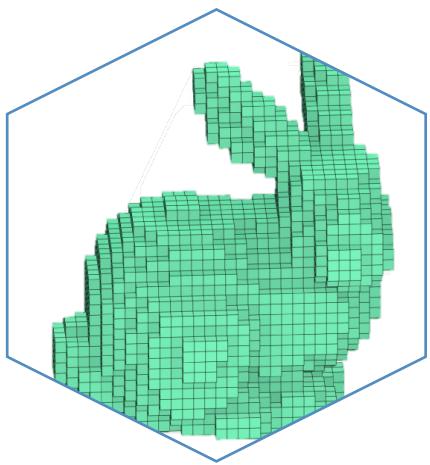


Places in which I have been working



Powered by Bing
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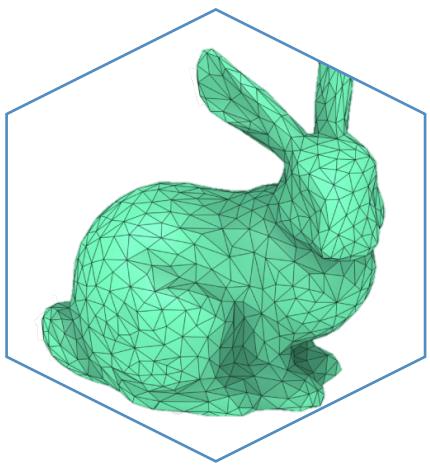
1. Computer Science – *in 3D Computer Vision*



(a) Implicit volumes



(b) Point cloud

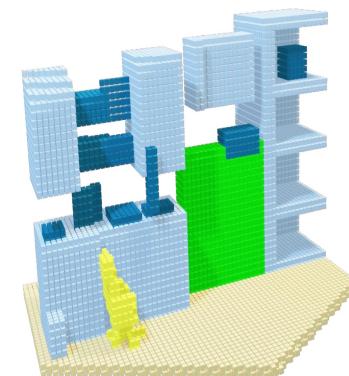


(c) Mesh

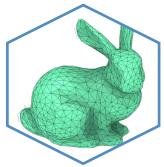
3 Major types to present 3D data –
my research covers all those areas

2. Computer Science – selected works from conferences

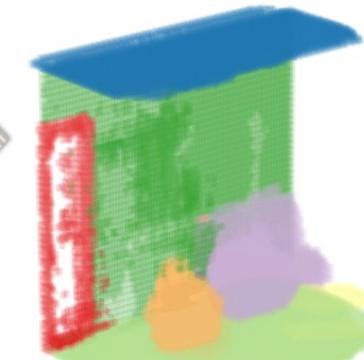
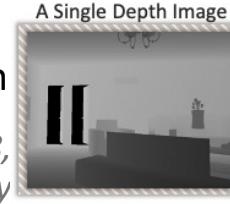
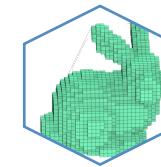
(a). Scene reconstruction
- ICCV 2019,
Seoul, Korea



(c). Hand pose estimation
- IROS 2019,
Macau, China



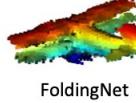
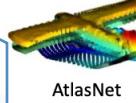
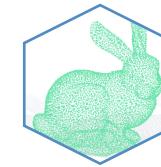
(b). Scene reconstruction
- 3DV 2018,
Verona, Italy



- Empty
- Ceiling
- Floor
- Wall
- Window
- Door
- Chair
- Bed
- Sofa
- Table
- Furniture
- Objects

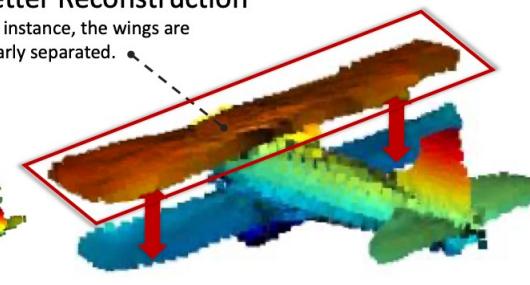
Propose Approach

(d). Point cloud reconstruction
- ECCV 2020 oral,
Glasgow, Scotland



Better Reconstruction

For instance, the wings are clearly separated.



SoftPoolNet
(Proposed Method)

2. Computer Science – academic growth in summary

Cited by

	All	Since 2016
Citations	178	176
h-index	6	6
i10-index	3	3

A bar chart titled 'Cited by' showing citation counts from 2016 to 2021. The y-axis represents the number of citations, ranging from 0 to 60 with increments of 30. The x-axis lists the years 2016, 2017, 2018, 2019, 2020, and 2021. The bars show a general upward trend, starting at approximately 10 in 2016, rising to about 35 in 2018, peaking at around 55 in 2020, and then slightly decreasing to about 25 in 2021.

Year	Citations
2016	10
2017	15
2018	35
2019	50
2020	55
2021	25

Google scholar
statistics*
- until April 28th, 2021

*All citations are collected from top-tier conferences in computer vision and robotics

2. Computer Science – *practical impacts*

Awarded developer with badge on their GitHub



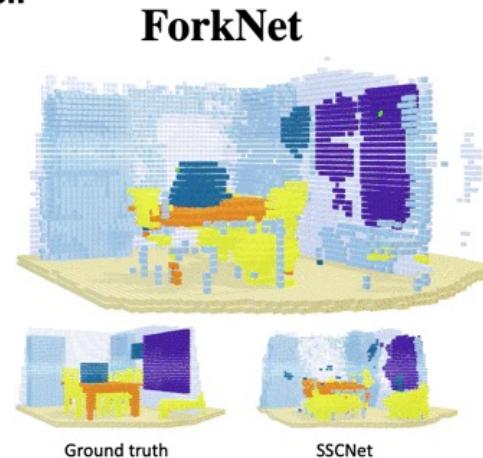
My libraries are used by
NASA's Jet Propulsion
Laboratory (JPL) to fly the
Ingenuity Helicopter in
Mars's thin atmosphere
—with an atmospheric
volume less than 1% of
Earth's on APRIL 19, 2021

2. Computer Science – *selected works from conferences*

Indoor Scene Semantic Completion



Input: Single depth image



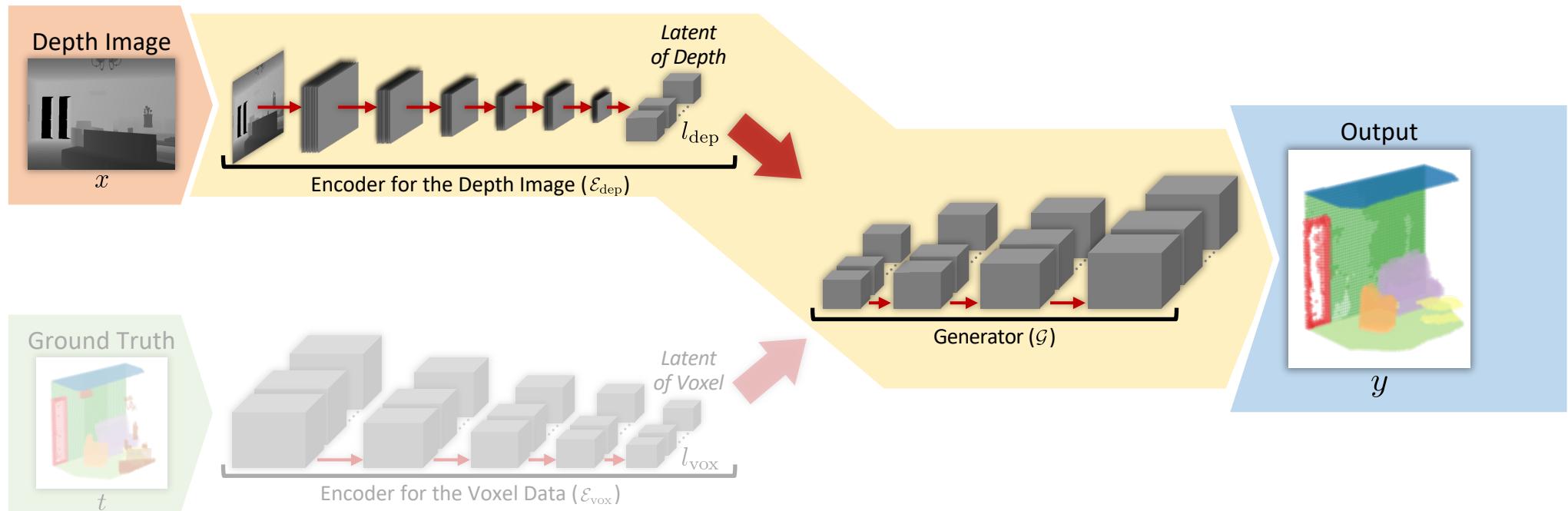
Object Completion



Input: Partial scan

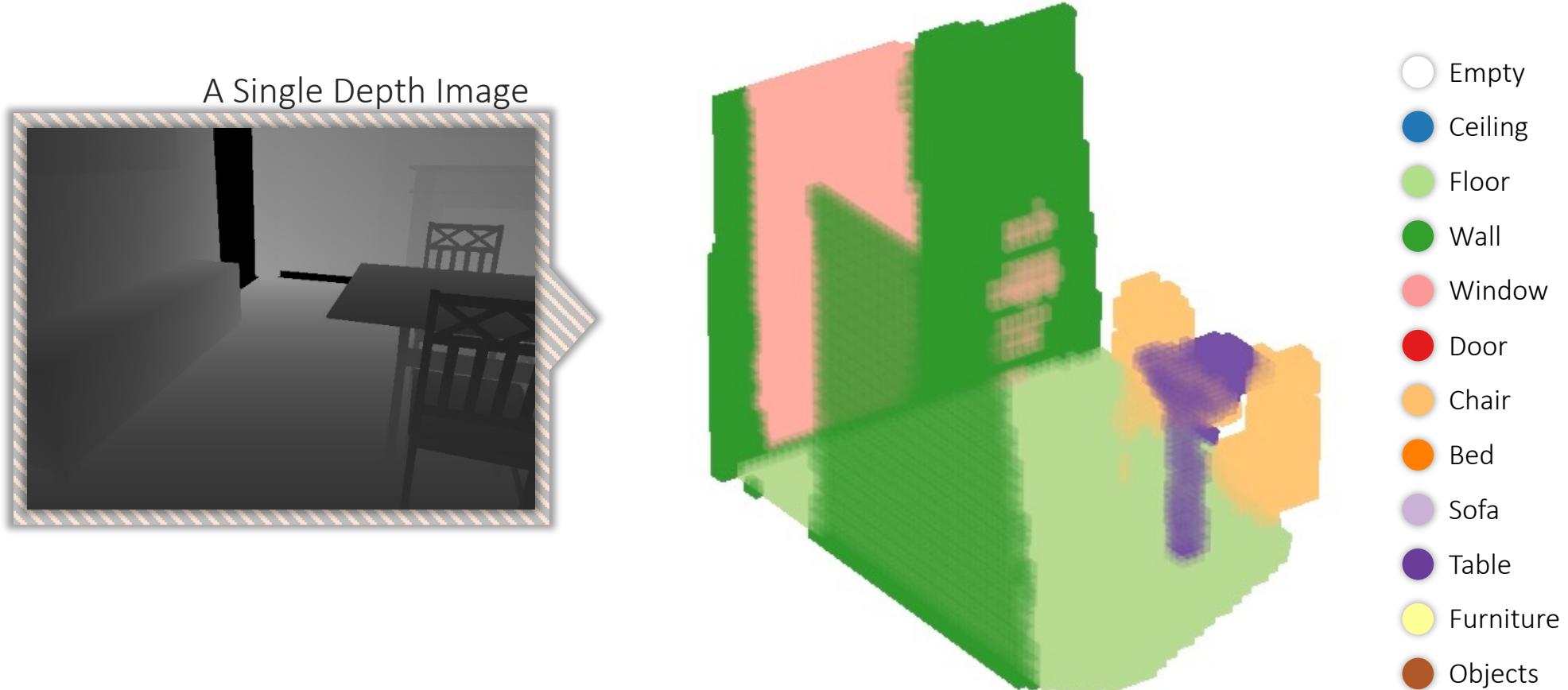


2. Computer Science – selected works from conferences



[2] Adversarial Semantic Scene Completion from a Single Depth Image

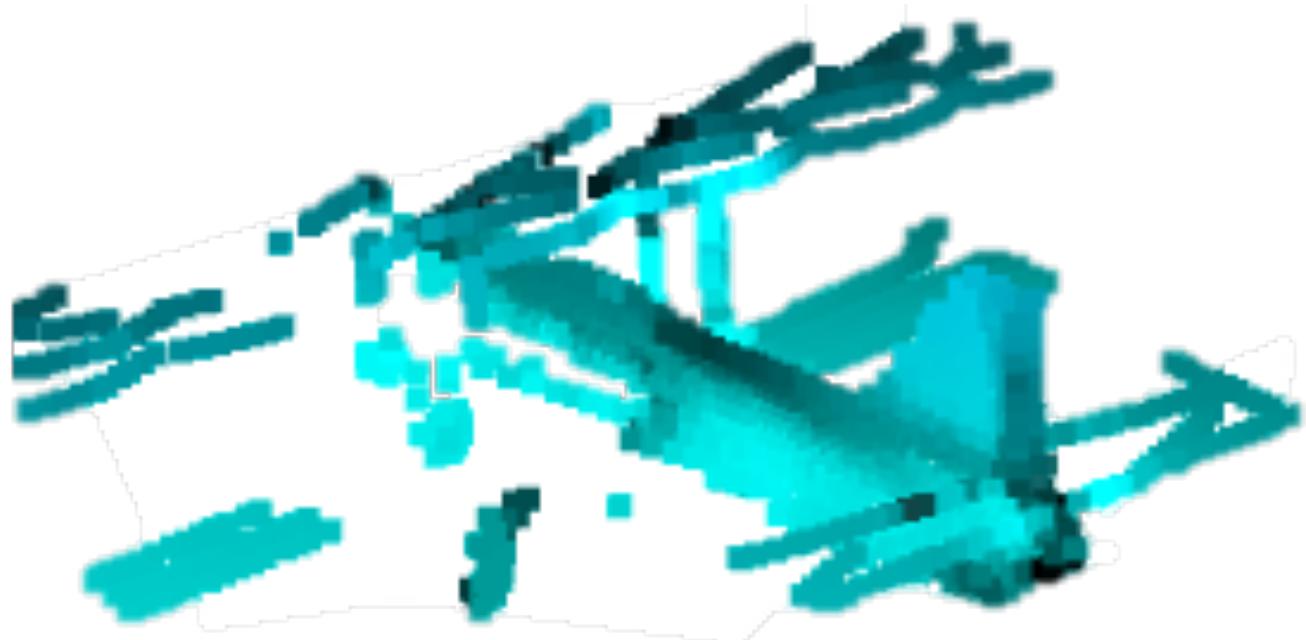
2. Computer Science – selected works from conferences



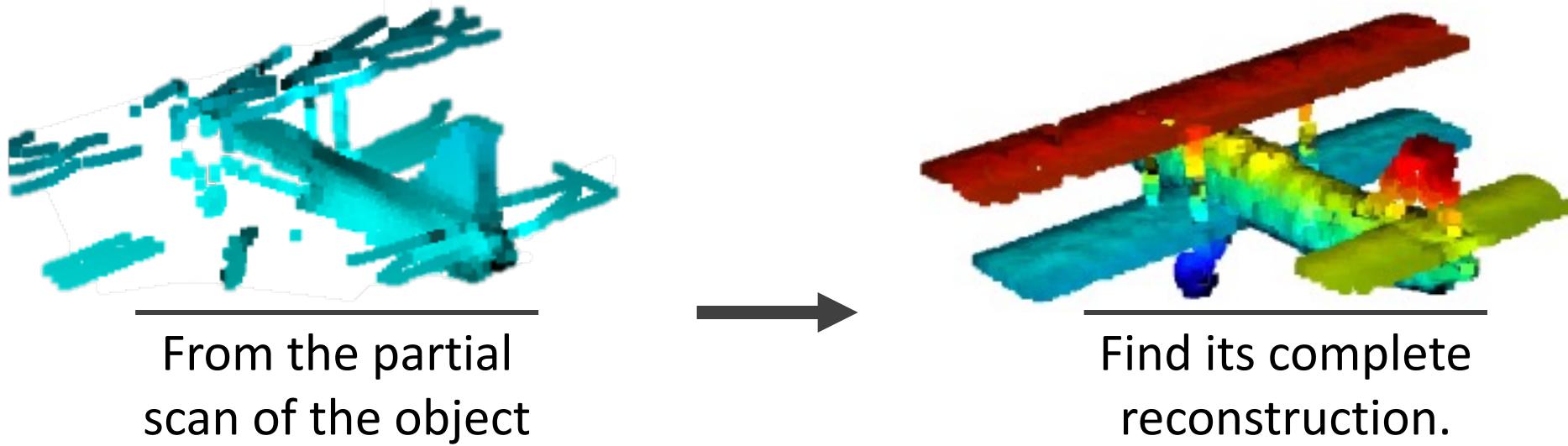
[2] Adversarial Semantic Scene Completion from a Single Depth Image

2. Computer Science – *selected works from conferences*

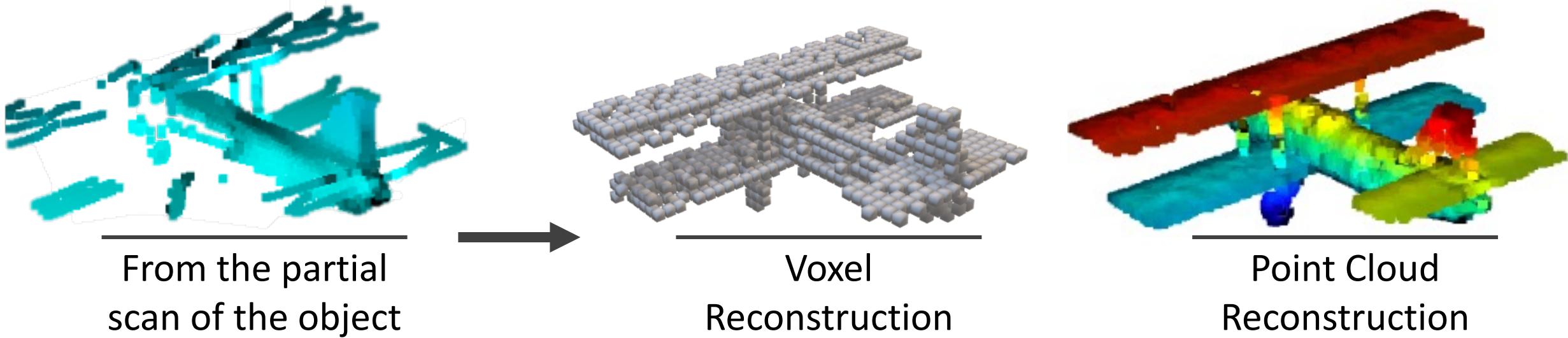
From the partial
scan of the object



2. Computer Science – *selected works from conferences*



2. Computer Science – *selected works from conferences*



3. Research Engineering – selected works from companies

(1) Google Summer of Codes

Deep Learning with Quantization for Semantic Saliency Detection

Semantic saliency detection be implemented based on CNN module. Quantization method described in [Pete's blog for quantization](#) will be added into project [tiny-cnn](#) together with deconvolutional functions. This project will be the dependency of OpenCV afterwards. There is also an IOS APP demo for such tiny deep learning structure.

Learning-based Super Resolution

Super resolution is the process of up-scaling and improving the details of an image. Currently the super resolution modules within OpenCV are based on methods such as robust regularization and optic flow estimation, while the current state-of-the-art methods are based on deep learning. I propose to add learning-based super resolution methods to OpenCV. This will allow for more accurate and faster (real-time) super resolution.



[GET THE CODE](#)

Organization

OpenCV

Student

Xavier Weber

Mentors

Yida Wang

student
→
Mentor

<https://summerofcode.withgoogle.com/archive/2016/organizations/6474535423442944/>

3. Research Engineering – selected works from companies

(1) Google Summer of Codes

https://www.youtube.com/watch?v=4qOESDgC1_M



Deployed APP on iPhone



Inference on iPhone 5



Training on iPhone 5

3. Research Engineering – selected works from companies

(2) Microsoft Open Source Challenge

- Global 2nd prize in (4 winners in total)
- Invited talk in Microsoft Faculty Summit 2016

First few works reimplementing papers
with CNTK



Akond Rahman

North Carolina State University, USA

Grand Prize: \$5,000

Entry: Quantifying Semantic Similarity of Software Projects using Deep Semantic Similarity Model (DSSM)



Varun Agrawal

Georgia Institute of Technology, USA

Second Prize: \$2,500

Entry: OneGroup: Automated Photo Sharing via Facial Recognition using Microsoft Cognitive Services (FKA Project Oxford)



Saeid TizPaz Niari

University of Colorado, Boulder, USA

Second Prize: \$2,500

Entry: CONFidentiality CERTifier: a Modeling and Verification Framework for Program Confidentiality using Z3



Yida Wang

Beijing University of Posts and Telecommunications, China

Second Prize: \$2,500

Entry: CNTK on Mac: 2D Object Restoration and Recognition on 3D Model

Microsoft Open Source Challenge

Our recent Challenge offered \$15,000 in prizes as students experienced the power of open source tools from a top research lab.



Winners

We are delighted to announce the winners of the Challenge. Interest over the past three months came from all round the world. The judging panel was impressed by all the entries. The following four were chosen to receive prizes. Congratulations to the winners!

Each of the winners used and in some cases added to open source tools from Microsoft Research as well as Project Oxford, which was included in the Challenge. [Read more on our Blog >](#)

3. Research Engineering – *selected works from companies*

(1) Google Summer of Codes

- Serving as project developer in 2015 and 2016
- Serving as project mentor in 2019

(2) Microsoft Open Source Challenge

- Global 2nd prize in (5 winners in total)
- Invited talk in Microsoft Faculty Summit 2016

(3) Scilab Simulator Design Contest

- Global 1st prize in 2013
- AIS system simulation

(4) FACEBOOK Research Intern

- Research intern in Facebook Reality Lab for eye 3D reconstruction

4. Teaching and Mentoring

- Tutor for courses:
 1. Computer Vision and Deep Learning for Autonomous Driving
 2. Perception and Learning in Robotics and Augmented Reality
 3. Deep Adversarial Training
- Supervisor for master thesis:
 1. Variational Object-aware 3D Hand Pose from a Single RGB Image – [Yafei Gao](#)
 2. 3D Surface Registration Using Shape Completion – [Mahsa Baghaei Heravi](#)
 3. 3D Instances from a single RGB Image – [Peter Mortimer](#)
- Invited Talks:
 - Deploying deep learning models with Microsoft CNTK on MacBook
at  Microsoft
 - Oral presentation for SoftPoolNet
on 

5. Technical Collaborators



Federico Tombari
from TUM/Google



Yafei Gao
from TUM



Yanyan Li
from TUM



Nassir Navab
from TUM



Pietro Falco
from ABB



Nikolas Brasch
from TUM



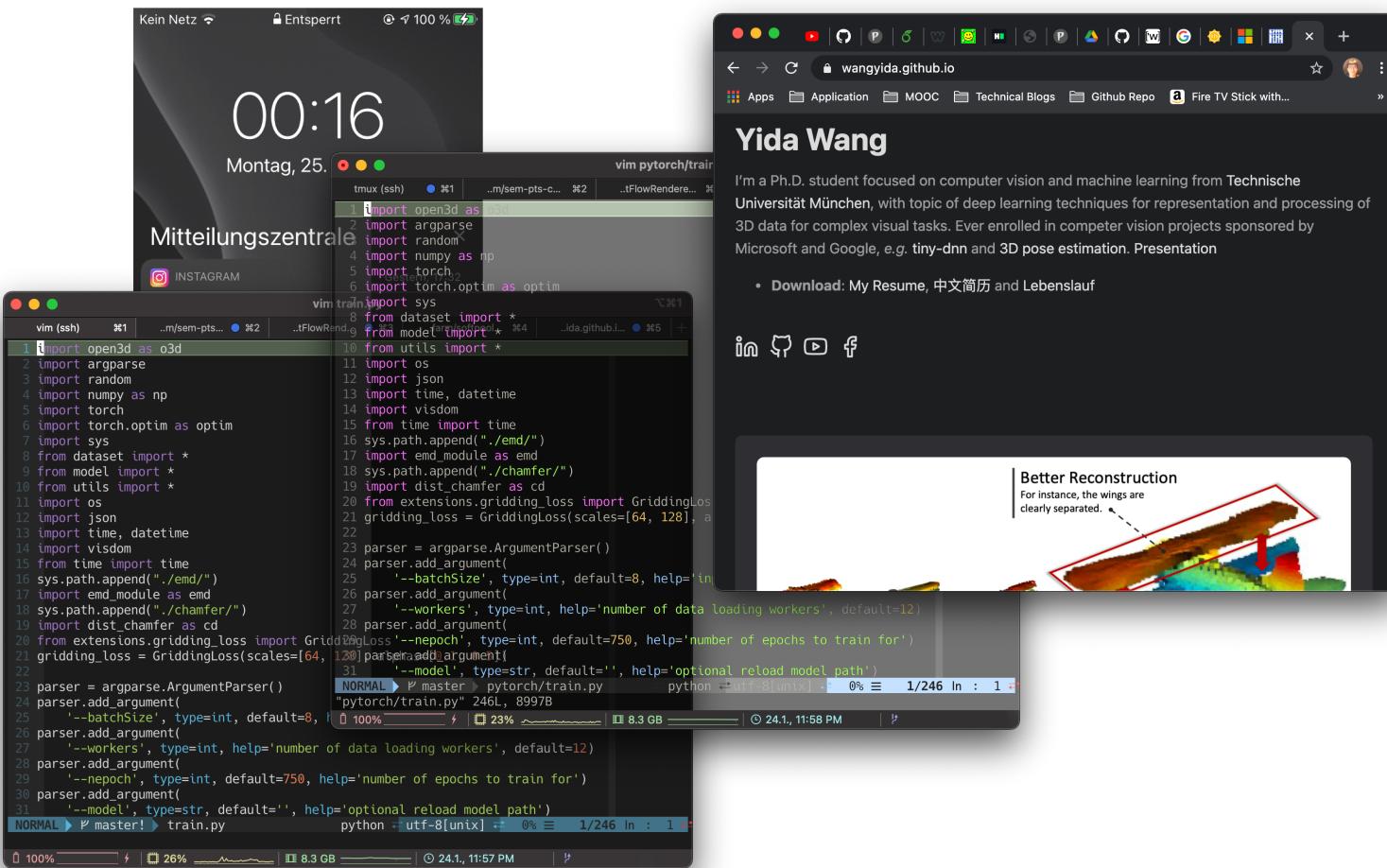
David Joseph Tan
from Google



Yiru Shen
from Facebook

6. Other Facts

(1) I usually prefer to work with theme consistency



iPhone theme

Website theme

Laptop terminal theme

Station terminal theme

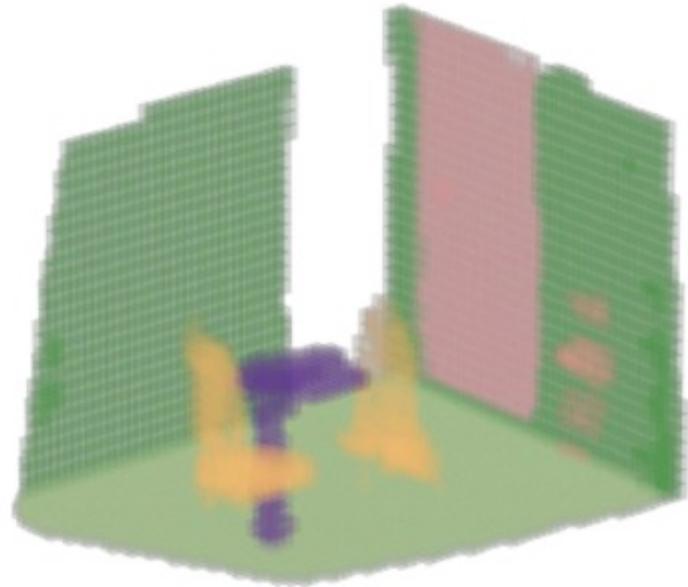
All configured
with:
Base16 IR Black

Scheme author: Timothée Poisot (<http://timotheepoisot.fr>)

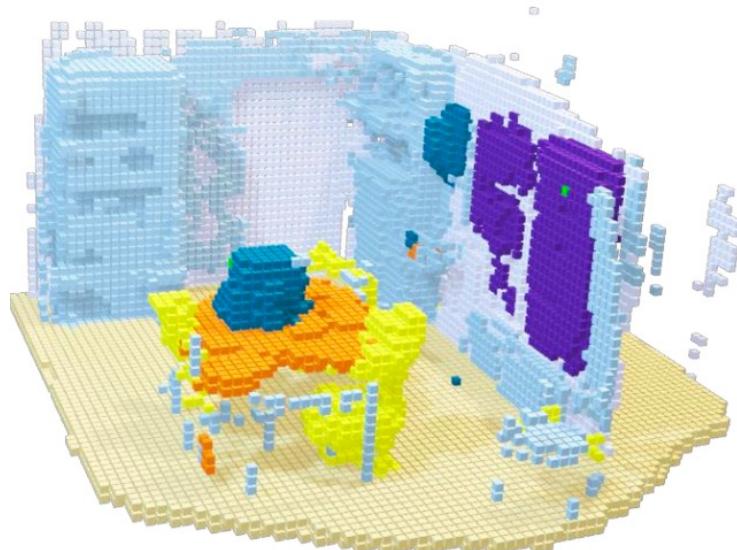


6. Other Facts

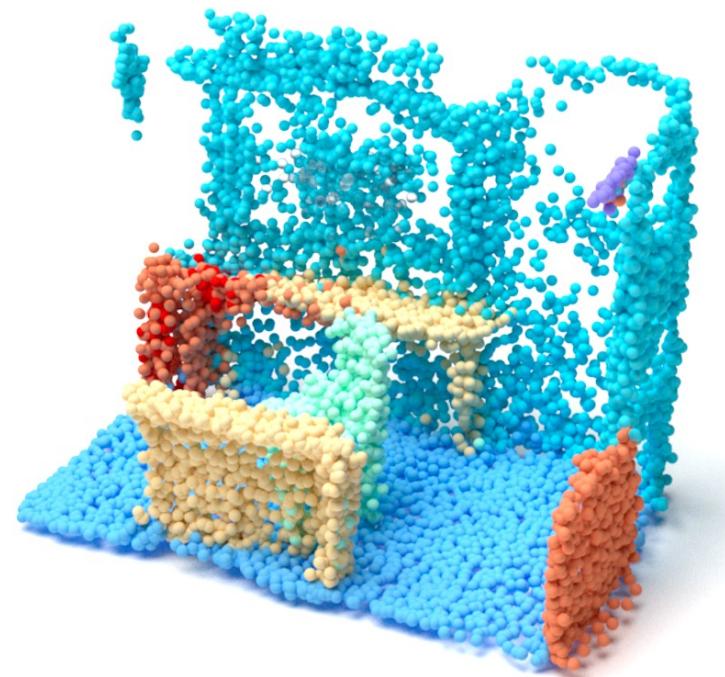
(2) I do like investigating CG rendering



2017 3DV



2019 ICCV



2021 *to be released...*

6. Other Facts

(3) Sports and entertainments of mine

1. I have won a bronze for triathlon, tried for full Marathon for several times
2. Ever won gold and bronze in capital university students track and fields games (400m hurdle)
3. Also learning some German and Japanese in my spare time
4. Help my friend doing some mechanic stuffs in Germany

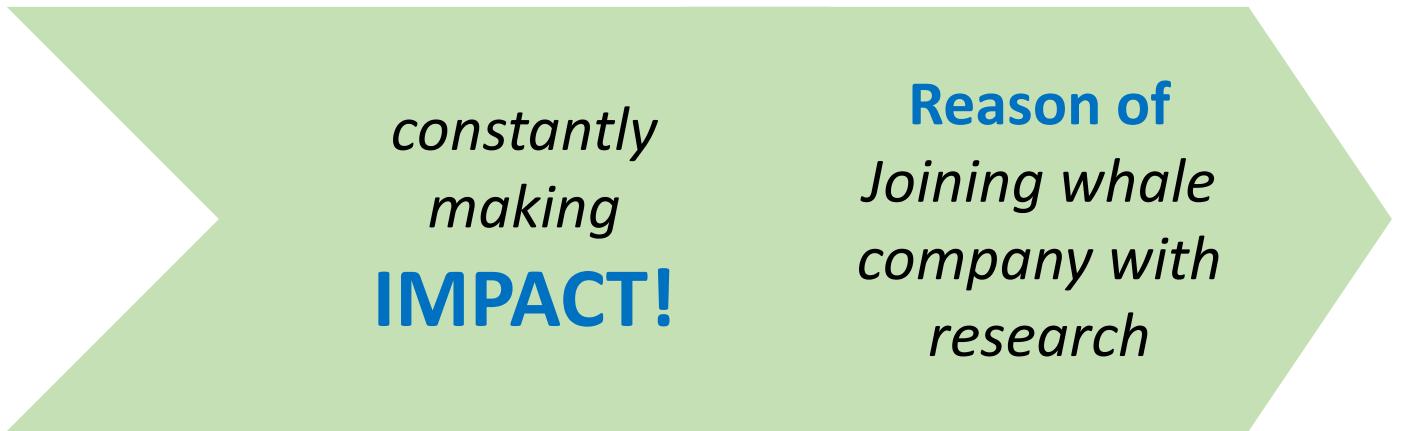
Back to the Beginning

1. Academic Experience
2. Computer Science
3. Research Engineering
4. Teaching and Mentoring
5. Technical Collaborators
6. Other facts



Summary

1. Building connection among techs with theories
2. Iteratively updating theories for techs
3. Sharing
4. Engineering for human
5. Teaching and Mentoring





Thanks!

