

# Mohsen YAVARTANOO

## PERSONAL DATA

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## RESEARCH INTERESTS

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Computer Vision  
Deep Learning  
3D Vision  
Self-Supervised Learning

## EDUCATION

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- 2019 - present Ph.D. in Electrical and Computer Engineering, Seoul National University, Seoul, South Korea.
- 2017 - 2019 M.Sc in Electrical and Computer Engineering, Seoul National University, Seoul, South Korea.
- 2011 - 2016 B.Sc in Mathematical Science, Sharif University of Technology, Tehran, Iran.
- 2007 - 2010 Diploma in Mathematics and Physics, Shahid Babaie (National Organization for Development of Exceptional Talents (NODET)), Qazvin, Iran.

## PUBLICATIONS

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- 2021 | PolyNet: Polynomial Neural Network for 3D Shape Recognition with PolyShape Representation. (Accepted in 3DV2021)  
*Mohsen Yavartanoo, Shih-Hsuan Hung, Reyhaneh Neshatavar, Yue Zhang, Kyoung Mu Lee*  
[myavartanoo.github.io/polynet/](https://myavartanoo.github.io/polynet/)
- 2021 | 3DIAS: 3D Shape Reconstruction with Implicit Algebraic Surfaces. (Accepted in ICCV2021)  
*Mohsen Yavartanoo, JaeYoung Chung, Reyhaneh Neshatavar, Kyoung Mu Lee*  
[myavartanoo.github.io/3dias/](https://myavartanoo.github.io/3dias/)
- 2018 | SPNet: Deep 3D Object Classification and Retrieval using Stereographic Projection. (Accepted in ACCV2018)  
*Mohsen Yavartanoo, Euyoung Kim, Kyoung Mu Lee*

## PROJECTS

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- CAD learning for manufacturing processes i.g., cutting, drilling, etc., and cost prediction.
- Point cloud registration and template matching for volume calculation from multi-view captured RGBD data by iPhone depth camera.
- Vehicle, pedestrian, and traffic sign detection and recognition from point clouds for autonomous driving cars.

## TEACHING EXPERIENCE

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- Fall 2020 Seoul National University, Teaching Assistant, Department of Electrical and Computer Engineering, **Introduction to Computer Vision**.
- Fall 2015 Sharif University of Technology, Teaching Assistant, Department of Mathematics and Computer Science, **Image Processing**.
- Fall 2014 Sharif University of Technology, Teaching Assistant Department of Mathematics and Computer Science **Introduction to Linear Algebra**.
- Teaching Mathematical and Computer Science Olympiad for high-school students.

## AWARDS AND SCHOLARSHIPS

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- Graduate Scholarship for Excellent Foreign Students (GSFS) at SNU Fall 2019 (for two years)
- SNU Global Scholarship for Spring 2017 (for one year)
- Accepted in the first round of Iranian Mathematical Olympiad (IMO) 2009

## OTHER ACADEMIC EXPERIENCES

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- 2022 Invited to serve as a reviewer for CVPR2022.
- 2021 Invited to serve as a reviewer for ICCV2021.
- 2012-2016 Sharif University of Technology, Algorithms and Problem Solving Lab:
  - Summer & Winter Schools on Mathematics and Computer Science.
- 2011-2013 Member of Math Scientific and Extracurricular Group, Department of Mathematics and Computer Science, Sharif university of technology
- Sharif University of Technology, Department of Mathematics and Computer Science, Reading Group:
  - *Winter 2014* Machine Learning
  - *Fall 2013-Winter 2014* Category Theory
  - *Spring 2013-Summer 2013* Computational Topology
- 2014 Editor of Sharif Mathematical Journal, Department of Mathematics and Computer Science, Sharif University of Technology

## LANGUAGES

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PERSIAN: Native  
ENGLISH: Fluent  
KOREAN: Basic  
ARABIC: Basic

## COMPUTER SKILLS

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Python, Matlab, PyTorch, TensorFlow, Houdini, Blender,  $\text{\LaTeX}$

## OTHER INTERESTS AND ACTIVITIES

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Tar & SeTar (Traditional music instruments)  
Climbing & Tennis  
Watching Movies & Playing Video Games